GEORGE MASON UNIVERSITY
UNDERGRADUATE CATALOG 1977-78

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Although this catalog was prepared on the basis of the best information available at the time of publication, all information, including statements of tuition and fees, course offerings, admissions and graduation requirements, is subject to change without notice or obligation.

George Mason University is fully accredited by the Southern Association of Colleges and Schools.

George Mason University is an Equal Opportunity/Affirmative Action institution committed to the principle that access to study or employment opportunities afforded by the University, including all benefits and privileges, be accorded to each person—student, faculty or staff member—on the basis of individual merit and without regard to race, color, religion, national origin, sex or age (except where sex or age is a bona fide occupational qualification). Appropriate procedures shall be adopted for the promotion of this principle in every phase of University operations. Furthermore, affirmative action will be taken to ensure that opportunities afforded by the University are fully available to the handicapped, women, and minorities. The University will make every reasonable accommodation to enable the handicapped to undertake work or study for which they qualify.

The University is also committed to the principle prescribed in Title IX of the Education Amendments of 1972, which specifically prohibits discrimination on the basis of sex in educational programs or activities which receive Federal funds.

Any student, employee or applicant for admission or employment who believes that he/she has not been dealt with by this University in accordance with the principles and requirements stated above may address the Office of Affirmative Action, George Mason University, and then state the facts that occasioned the complaint, present any relevant documents or correspondence, and request assistance in resolution of the matter.

George Mason University
June 1977
Undergraduate Catalog

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Degree Programs

Undergraduate

American Studies BA
Art BA
Biology BA, BS
Business Administration BS
Chemistry BA, BS
Dramatic Arts BA
Early Childhood Education BS Ed
Economics BA, BS
Elementary Education BS Ed
English BA
European Studies BA
Fire Administration and Technology BS
French BA
Geography BA
German BA
Government and Politics BA
Health and Physical Education BS Ed
History BA
Individualized Study BIS
International Studies BA
Latin American Studies BA
Law Enforcement BS
Mathematics BA, BS
Medical Technology BS
Music BA, BM
Nursing BS
Philosophy BA
Physics BA, BS
Psychology BA, BS
Public Administration BS
Social Welfare BS
Sociology BA
Spanish BA

Graduate

Biology MS
Business Administration MBA
Guidance and Counseling M Ed
Economics MA
Elementary Education M Ed
English MA
History MA, MAT
Mathematics MS
Psychology MA
Public Administration MPA
Reading M Ed
School Administration M Ed
School Supervision M Ed
Secondary Education M Ed
Spanish MA
Special Education M Ed
Contents

Academic Calendar ................. 4, 5
University Information ............. 6
Student Activities & Services ....... 13
Admissions ....................... 22
Tuition and Fees ................... 25
Academic Policies and Procedures .... 27
College of Arts and Sciences ........ 38
College of Professional Studies ...... 107
School of Business Administration ... 123
Bachelor of Individualized Study .... 128
Administration and Faculty ........ 132
Index ................................ 146
Map ................................. inside back cover
Telephone Directory ............... 148

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Academic Calendar
1977-78

First Semester 1977

Wednesday, June 15 ............... Last day for filing Graduate School Admissions Applications for first semester, Fall, 1977-78
Thursday, June 16 through Friday, June 24 ............... Welcoming Days for Undergraduate Students. Early registration for certain newly admitted students (by invitation only)
Monday, June 27 ............... Last day for undergraduate students not in continuous registration (Summer Session excluded) to notify Admissions Office for reenrollment first semester
Friday, July 1 ............... Last recommended date for filing undergraduate admission applications for first semester
Friday, July 15 ............... Foreign Languages Placement Testing
Friday, August 12 ............... Tuition and fees due for early-registered students

Monday, August 22 through Wednesday, August 24 ............... Welcoming days, and orientation programs for new undergraduate students and new faculty, and Proficiency and Placement Examinations
Biol 124-125 Examination for Nurses
English Composition
Mathematics Proficiency Test
Music Competency Placement Tests

Thursday, August 25 through Tuesday, August 30 ............... Registration (for times and priorities see calendar in Schedule of Classes)
Thursday, September 1 ............... First day of classes
Saturday, September 3 through Monday, September 5 ............... Labor Day recess
Thursday, September 8 ............... Last day for adding new courses (undergraduate — day sections)
Wednesday, September 14 ............... Last day for adding new courses (evening and graduate sections)
Friday, September 23 ............... Last day for filing winter degree applications (Masters') in Office of the Registrar
Friday, October 14 ............... Patriots' Day — special schedule
Friday, October 21 ............... Last day for filing spring degree applications (Bachelors') in Office of the Registrar
Wednesday, November 2 ............... Last day for dropping a course without incurring a grade of "F"
Tuesday, November 15 ............... Last day for filing Graduate School admissions applications for second semester
Thursday, November 17 ............... Last day for undergraduate students not enrolled in first semester to notify Admissions Office for reenrollment second semester.

Spring Semester Schedule of Classes and registration calendar published

Thursday, November 24 through Sunday, November 27 ............... Thanksgiving recess
Monday, November 28 through Friday, December 2 ............... Early registration (for times and priorities see calendar in Schedule of Classes)
Thursday, December 1 ............... Last recommended date for filing undergraduate admission applications for second semester
Friday, December 2 ............... Winter Masters' theses due in Office of Graduate Dean
Monday, December 12 ............... Last day of classes
Tuesday, December 13 (to 4:00 p.m.) ............... Study day
Tuesday, December 13 (4:00 p.m.) through Wednesday, December 21 ............... Examinations
Thursday, December 15 ............... Foreign Languages Placement Testing (for Undergraduates)
Saturday, January 14, 1978 ............... Winter Commencement

Second Semester 1978

Friday, January 6 ............... Tuition and fees due for early-registered students
Friday, January 13 ............... Placement and Proficiency Testing (undergraduate): Biol 124-125 Examination for Nurses
Mathematics Proficiency Test
Music Competency Placement Tests
Saturday, January 14 .......... Winter Commencement
Monday, January 16 .......... Welcoming day; English Proficiency Test (undergraduate)
Tuesday, January 17 through Thursday, January 19 .......... Registration (for times and priority see calendar in Schedule of Classes)
Monday, January 23 .......... First day of classes
Friday, January 27 .......... Last day for adding new courses (undergraduate - day sections)
Friday, February 3 .......... Last day for adding new courses (graduate and evening sections)
Friday, February 10 .......... Last day for filing Spring degree applications (Masters') in Office of the Registrar
Friday, February 24 .......... Last day for filing summer degree applications (Bachelors') in Office of the Registrar
Saturday, March 11 through Sunday, March 19 .......... Mid-semester recess
Wednesday, March 15 .......... Last day for filing Graduate School admission applications for Summer 1978
Friday, March 24 .......... Last day for filing winter degree applications (Bachelors') in Office of the Registrar
Friday, March 31 .......... Last day for dropping a course without incurring a grade of "F"
Friday, April 14 .......... George Mason Day - special class schedule. Recommended filing date for financial aid applications for summer 1978

Second Semester 1977-78

Monday, May 8 (4:00 p.m.) .......... Start of classes
through Tuesday, May 16 .......... Examinations
Saturday, May 20 .......... Spring Commencement
Thursday, June 15 .......... Last day for filing Graduate School admission applications for Fall 1978

Summer Session 1978

Summer Session consists of several terms, ranging in length from five to eight weeks, during the period May 29-August 6. Classes are offered during both day and evening hours. For details, consult the Summer Session Catalog, which is available in February.

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University Information

History of the University

George Mason University is the outgrowth of an extension center for higher education established in Northern Virginia in 1948 by the University of Virginia. In 1956 the Board of Visitors of the University of Virginia authorized the establishment of a co-educational two-year branch college to supplement extension offerings in Northern Virginia. This branch opened in September, 1957, in temporary quarters at Bailey’s Crossroads. It had 17 students and was called the University College.

The City of Fairfax purchased 150 acres for a permanent branch campus and donated it to the University of Virginia in 1959. Early the following year, the branch was named for the Virginia statesman, George Mason, and was given the status of a community college.

In March, 1966, the General Assembly authorized the expansion of George Mason into a four-year degree-granting institution and gave it the long-range mandate to expand into a university of major proportions. The first senior class received degrees in June, 1968. Graduate programs began in September, 1970, and the first graduate degrees were conferred in June, 1971.

In an attempt to meet the state’s long-range mandate, the George Mason College Board of Control, supported by the citizens of Alexandria, Falls Church, Arlington and Fairfax County, worked to acquire 422 additional acres. In January, 1972, the George Mason College Foundation, Inc. acquired the former Fairfax High School on Route 50 in Fairfax City and this facility is now known as the North Campus. By the end of 1972 the University’s Main Campus had reached its current size of 576 acres.

Having established and fostered the institution through its first fifteen years of growth, the Rector and Visitors of the University of Virginia recommended to the Governor of the Commonwealth of Virginia that George Mason College be separated from its parent institution in February, 1972. The enabling legislation was passed by the General Assembly, signed by the Governor, and on March 1, 1972, the former branch of the University of Virginia became an independent institution under the name of George Mason University.

Mission and Goals

George Mason University

The statute creating this institution, and its location in the most rapidly growing, densely populated suburban area of Virginia, together impose on this University a mission capable of providing leadership in identifying and meeting the higher education needs of all who reside in Northern Virginia. George Mason University accepts the responsibility for carrying on a persisting and aggressive search for ways of serving the educational, research and community service needs of Northern Virginia, the development of its faculty and facilities to meet these needs and those of the State and of the nation to which it can contribute, and the articulation of its capabilities with those of other institutions of higher education in Virginia.

To accomplish this mission, George Mason University will strive to achieve the following goals:

Goal 1. George Mason University will seek out and meet the evolving needs of the citizens of Northern Virginia for higher education, research and knowledge-based services. The criteria by which the needs of its constituencies will be assessed will include needs manifested by students enrolling in this and other institutions of
higher learning, the advances in education technology as their worthiness is proven, the career opportunities offered by employers in this and other regions, and the needs for moral and cultural development.

This University in framing its offerings will adapt its programs flexibly and imaginatively to cope with the evolution of each of the criteria listed. It will take advantage of its unique laboratory-like setting in a modern suburban area, richly endowed with both industrial and residential facilities and with historic significance, and adjacent to Washington, D.C., a center of national and international activities. Since its resources and capacities will necessarily be limited, it will in formulating its offerings, continually seek evidence of the substantiality of the needs voiced by students or groups within the surrounding region and the educational feasibility of serving these needs.

Goal 2. George Mason University is committed to develop in those men and women who enroll in its programs those qualities which will make of them cultured, thoughtful and informed men and women. This University accepts the obligation of helping individuals to equip themselves for successful careers in business, in public services, in the arts, or in the professions. In addition it will aspire to develop in each of its students moral and cultural values, minds capable of disciplined reasoning and rigorous decision making, and the innate desire to achieve excellence and leadership in whatever field of endeavor the individual pursues.

To these ends George Mason University will incorporate in all degree programs it offers a substantial core from the arts and sciences designed to develop the ability of each of its graduates to reason effectively, to express himself or herself clearly, and to identify those values for which he or she stands.

Goal 3. George Mason University will endeavor to serve those individuals who will be pursuing programs leading to baccalaureate, graduate and professional degrees and also those individuals who seek to further their previous education but have neither a need for, nor the desire to attain a degree.

To these ends this University will offer (a) carefully designed baccalaureate and graduate programs, articulated with the programs and courses offered by other institutions of higher education in this region, (b) an array of courses especially tailored to enable individuals to continue their educations and thus to grow occupationally, and (c) encouragement to individuals to pursue life-long learning in order to fulfill themselves as citizens, as parents and as self-sustaining individuals.

Goal 4. George Mason University will develop, as its student body and its faculty grow in numbers, internal communities that will associate faculty members and students who share common intellectual interests, that will encourage interchange among students and faculty members, and that will overcome the impact of “bigness” by providing foci for association among students. It will achieve this objective by maintaining a complex of separate but inter-related colleges limited in size, each with a distinctive educational task. The educational tasks of these colleges will be to provide programs of demonstrable excellence in (a) the liberal arts, (b) professional fields, (c) graduate study and (d) continuing education.

Goal 5. George Mason University will enhance the accessibility of this University to capable students regardless of race, creed, age, sex, income or geographical location within Northern Virginia. It will do this by expanding its ability to provide financial aid; by continually re-evaluating its admission criteria; by modifications in its own curricula and teaching processes; and by devising methods that make its services conveniently available to all who might benefit from them throughout the Northern Virginia region.

Goal 6. George Mason University will continually strive to develop an academic, social and physical environment that will enable not only the younger student but also the more mature student to broaden his or her perception of self and to formulate new goals. The University recognizes the special need to reach effectively those students who are associated with the University only a few hours each week, and will seek to provide through its academic programs and its student services a responsive environment that will stimulate the development of each student.

Goal 7. The University will attract, support and periodically review the performance of a faculty of men and women of diverse races and creeds from the liberal and applied arts, the sciences, and professional studies who demonstrate excellence in teaching. This faculty will be encouraged and aided in its efforts (a) to further develop competency in identified fields of specialization, (b) to
extend the frontiers of research, and (c) to enhance community services. By its excellence and effort, the faculty will forward the University's educational leadership role in the region and be a vital and integral part of the intellectual development and growth of Northern Virginia.

**Goal 8.** George Mason University will encourage research as an integral part of the learning process by both students and faculty. The University is committed to the idea that learning must comprehend active inquiry, the satisfaction of intellectual curiosity, and the persisting scholarship that broadens and deepens understanding and that for some participants leads to the discovery of new knowledge.

**Goal 9.** George Mason University acknowledges its role of assisting in the development and improvement of the cultural and intellectual life of the community, particularly Northern Virginia. The University has a significant opportunity to serve in ways that go beyond formal educational programs and community-benefiting research; therefore, the University will encourage its faculty members and students continually to enhance their capabilities in light of community needs and actively to translate those capabilities into community service. Programs which advance this goal will be actively sought for the mutual growth and benefit of George Mason University and Northern Virginia in the years ahead.

**Goal 10.** George Mason University will continue to plan its physical plant expansion and continually improve its organization, administrative services and procedures to insure for the future a harmonious and pleasant environment, and to enhance the excellence of all its activities. In order to achieve this goal the University will seek both human and financial resources that will cause it to be a dynamic force for improvement of higher education in Northern Virginia, and an example of moral and educational leadership.

*(Approved by the Board of Visitors January 8, 1975)*

**About the University**

George Mason University, the State University in Northern Virginia, offers a wide range of undergraduate and graduate degree programs at two Fairfax campus locations; courses are also taught at more than 25 off-campus sites in the region.

The University's Main Campus is located just south of the City of Fairfax at Route 123 and University Drive. The North Campus is situated on U.S. Routes 50, 29 and 211, within the City. Both campuses are 16 miles from downtown Washington, D.C.

Since 1964, when the first four academic buildings opened on the Main Campus, expansion has been rapid. Today, the University serves more than 9,300 day and evening students through the College of Arts and Sciences, the College of Professional Studies, the School of Business Administration, and the Graduate School. A Summer Session provides courses for almost 5,000 students.

George Mason University serves a diverse, metropolitan student body. Five hundred students live in apartments on the Main Campus; all others commute to the two Fairfax campuses from the greater Washington, D.C. area. Half the students are employed and attend the University on a part-time basis; ten percent are veterans using financial provisions of the GI Bill. Of the almost even numbers of men and women, one-third are married; the average student is twenty-five years old. About 40% of the students major in arts and sciences programs, 25% in business, and 13% in nursing. The remainder enroll in programs and courses such as education, fine and performing arts, or public administration.

In the development of George Mason's 576-acre Main Campus, careful attention has been paid to the preservation of the natural beauty of the area. Parking is located on the perimeter of the campus, with buildings surrounded by groves of trees and park-like recreational areas.

Several new buildings have recently been completed, including Clarence Robinson Hall, an addition to the Student Union, and a five-story tower addition to the Charles Rogers Fenwick Library. Clarence Robinson Hall houses a number of academic departments. The library addition is the first of six such modules scheduled to be built at intervals. The Student Union, a physical education building, library, lecture hall, an administration building, a biology greenhouse, and several modern classroom buildings are situated on the Main Campus.

The School of Business Administration and the Department of Fine and Performing Arts are temporarily located on the University's 16-acre North Campus. The North Campus facility provides special art, music, dance, and theater areas, including studio and rehearsal rooms and an 800-seat auditorium. A specialized library serves students in disciplines housed there, a cafeteria is also available. A scheduled shuttle-bus operates between the two campuses.

Planning is currently completed for the construction of the second phase of Clarence Robinson Hall. The University has resubmitted requests for design monies for a second tower addition to the library, for a second phase of the physical education building, and for a permanent administration building. Planning for a new academic building, Academic III (to house all of psychology, geology and the research components of biology and physics), is also completed.

Counseling, testing, financial aid, job placement, career planning, and health insurance are among the many services available to students.

Nine new three-story apartments on the Main Campus are occupied by students this year for the first time. Five hundred students share two, four and six person units which provide full living accommodations. In addition to on-campus housing, the Office of the Student Housing Coordinator can assist students in finding suitable housing in the vicinity.

Campus clubs, student publications, student government, and intramural and intercollegiate athletics offer students a variety of activities in which to participate.

**Library Services**

University library services are provided on both Fairfax campuses. An open stack arrangement encourages direct access to the collections which number 145,600 volumes and 193,309 microform units. Approximately 2,150 current periodicals are received. The library is a selective depository for United States Government publications. Services available to students and faculty at both campus locations include interlibrary loan.

Students studying at the University have the research and cultural resources of Metropolitan Washington at their disposal. The many specialized libraries and collections of the National Archives, the Library of Congress, and the Smithsonian Institution are easily accessible.

**Federal Theatre Project**

The Research Center for the Federal Theatre Project contains the major collection of playscripts, radio scripts, set and costume designs, and other creative materials produced by the Federal Theatre of the 1930's. Based on more than 40,000 items placed on deposit at George Mason by
Learning is not confined to the classroom. Field trips and practical use of learned skills enhance the quality of education at George Mason.

the Library of Congress in 1974, the collection also includes gifts from private individuals and a growing oral history library. The Center is housed in the Fenwick Library and administered in conjunction with the Department of English. Approved students in various disciplines make use of its resources.

Academic Programs
College of Arts and Sciences (1972)
Various academic programs are available to students at George Mason University. Courses of study in the College of Arts and Sciences leading to the Bachelor of Arts degree are available with majors in 22 areas: American studies, art, biology, chemistry, dramatic arts, economics, English, European studies, French, geography, German, government and politics, history, international studies, Latin American studies, mathematics, music, philosophy, physics, psychology, sociology, and Spanish.

Courses of study in the College of Arts and Sciences leading to the Bachelor of Science degree are available in biology, chemistry, economics, law enforcement, mathematics, physics, psychology, public administration and social welfare.

The College also offers a Bachelor of Music degree.

At the same time, while completing the requirements for a baccalaureate degree within the College of Arts and Sciences, interested students have the option of obtaining teaching certification at the secondary level.

In addition to four-year programs the College offers a two-year engineering program designed to meet most of the basic requirements of the first two years of the standard engineering curriculum.

College of Professional Studies (1972)
Majors and degrees possible in the College of Professional Studies are: Bachelor of Science in Education (B.S. in Ed.) with majors in early childhood education, elementary education, and health and physical education; Bachelor of Science in medical technology, in fire administration and technology; and a Bachelor of Science in nursing.

School of Business Administration (1977)
The Department of Business Administration becomes the School of Business Administration on July 1, 1977. A course of study in the School leads to the Bachelor of Science degree (B.S.) with a major in Business Administration.

Bachelor of Individualized Study (1975)
The Bachelor of Individualized Study degree (BIS) draws upon the undergraduate resources of the academic units of George Mason and of the member institutions of the Consortium for Continuing Higher Education in Northern Virginia. Students accepted into the BIS degree program should consult the BIS section of this catalog to learn of differences between the regular academic policies and those affecting the BIS degree candidate in particular.

Graduate School (1972)
George Mason University offers a number of master’s degree programs through the Graduate School. Information concerning these graduate programs is presented in a separate Graduate School catalog which may be obtained from the Graduate School Admissions Office.
programs currently available at the University are biology, business administration, economics, elementary education, English, guidance and counseling, history, mathematics, psychology, public administration, reading, school administration, school supervision, secondary education, Spanish, and special education.

Summer Session
Information concerning the George Mason University Summer Session is presented in a separate catalog which is available in February from the Office of Admissions. The Summer Session at George Mason University has markedly increased educational opportunities for students in Northern Virginia. The offering of summer courses is controlled by a funding pattern more restrictive than that for the regular academic semesters. Students who wish to complete graduation requirements for summer commencement should understand that the University does not necessarily offer all required courses in any particular Summer Session.

Extended Studies (1973)
The University's Office of Extended Studies performs a number of functions generally associated with continuing and adult education. Special academic programs offered through the Office of Extended Studies originate in the appropriate college and school of the University, and hence are subject to official University regulations and procedures.

Bachelor of Individualized Study
The Bachelor of Individualized Study degree (BIS) draws upon the undergraduate resources of George Mason University and of the member institutions of the Consortium for Continuing Higher Education in Northern Virginia. The degree program, open to students 25 years-of-age or older, provides an alternative to traditionally structured baccalaureate programs. Under the BIS degree program, students work closely with their academic advisers in planning a flexible course of study which complements individual needs and interests. The program is inter-institutional, individualized, and inter-disciplinary, without a major subject as required traditionally.

Students may take courses at any undergraduate Consortium institution, and may also draw upon such non-traditional modes of instruction as newspaper, television, and correspondence courses, CLEP and USAFI subject exams, service connected schools, and independent study to complete the BIS program.

For more detailed information about the BIS degree program, consult the BIS section of this catalog or contact the BIS coordinator in the Office of Extended Studies.

Evening Session
The Office of Extended Studies coordinates the courses and programs of the College of Arts and Sciences, the College of Professional Studies, and the School of Business Administration scheduled after 4:15 p.m. A number of bachelor's degree programs are completely available in the evening, including business administration, economics, English, history, mathematics, philosophy, psychology, and sociology. All academic departments offer evening courses, and other undergraduate majors will be added in the evening as the evening session expands.
The Extended Studies Office maintains evening office hours, Monday through Thursday, for the convenience of evening students. This office performs many of the daytime functions of the deans' offices, the admissions office, the registrar's office, the cashier, and the departmental offices during its evening hours of operation. The Director of Extended Studies administers many academic policies for undergraduate evening students. Additional information on the evening session is available in the Continuing Education brochure. Evening class schedules are included in the University's master class schedule publication each semester.

**Extended Studies Enrollment**

Administered by the Office of Extended Studies, this program allows persons who may not meet regular undergraduate or graduate admissions criteria, or for whom these criteria are not appropriate, to apply for enrollment in any on- or off-campus course for which they are qualified without seeking admission to the University. Credits earned by students as Extended Studies enrollees are recorded on regular transcripts.

If a student who has enrolled in courses using this procedure wishes to apply for admission, the regular graduate or undergraduate admission procedures take effect, almost as if the student were applying for transfer. Although Extended Studies enrollees may apply for regular admission at any time, any undergraduate Extended Studies enrollee who maintains at least a "C" average for 15 semester-hours is eligible for admission to one of the undergraduate colleges. Undergraduate students may apply up to 60 hours of credit earned through this program as subsequently applicable to a degree; graduate students may apply up to 12. Professional counseling is available by appointment in the Office of Extended Studies. Prospective enrollees must bring records of all previous academic work with them for counseling purposes.

All University tuition, fees and regulations affect Extended Studies enrollees. To qualify for this type of enrollment, a student must be approved each semester for each course enrollment by a professional counselor in the Office of Extended Studies who will counsel and advise the student about prerequisites and course requirements. The Director of Extended Studies administers many academic policies for students enrolled through this program.

**Off-Campus Credit Courses**

The Office of Extended Studies administers a program of regular undergraduate and graduate credit courses of the colleges and schools of the University at convenient off-campus locations throughout Northern Virginia. Off-campus credit courses are fully applicable to the residence and degree requirements of the University. Off-campus class schedules are included in the University's master schedule and listed in a separate off-campus schedule of classes each semester.

**Guest Matriculant Enrollment**

All persons enrolled in degree programs at other accredited institutions who wish to take undergraduate courses at the University for credit transfer back to their home institution enroll through the Office of Extended Studies. Such guest matriculants should submit evidence of permission to enroll from the appropriate dean at their home institution to a counselor in the Office of Extended Studies.

**Senior Citizens Enrollment**

The Office of Extended Studies administers the Senior Citizens Higher Education Act of 1974 as applicable to the University. Under the terms of this act, eligible Virginia residents over 60 years-of-age with a taxable income of less than $5,000.00 are entitled to enroll in University courses on a space available basis without paying tuition and fees. The act also provides for audit and for non-credit course enrollment without payment of tuition and fees, and without income limitation. Interested senior citizens should contact the Office of Extended Studies.

**Public Service and Non-Credit Offerings**

Non-credit courses, workshops, institutes and programs offered by the University are coordinated or administered through the Office of Extended Studies. The University's on-going series of non-credit educational activities serves a variety of community and public service needs. Each semester a series of short courses which may be taken for personal enrichment, professional advancement, or recreation is offered to the public at a modest cost. Course offerings, schedules, and fees are available in a non-credit brochure published semi-annually.

Other public service offerings include conferences, workshops, and institutes of a more specialized nature offered at the request of governmental, industrial, business, and professional groups to meet in-service training needs.

The University will award Continuing Education Units (CEUs) to students who have successfully completed any non-credit activity for which CEUs are designated. A continuing education unit is a uniform way of measuring a student's participation in a non-credit continuing education activity: one CEU is equal to 10 contact hours of participation in an organized continuing education experience under responsible sponsorship, capable direction, and qualified leadership. The University recognizes the individual's effort in adult and continuing education by recording the successful completion of this effort and by maintaining a record for each student who has engaged in this activity at the University.

The University seeks to make its resources available to the community through the Office of Extended Studies.

**Consortium Membership**

George Mason University is the host institution of the Consortium for Continuing Higher Education in Northern Virginia. In addition to George Mason University the other members are Northern Virginia Community College, University of Virginia, Virginia Polytechnic Institute and State University and affiliate member, Marymount College of Virginia. The Consortium's primary goal is to foster inter-institutional cooperation while broadening the base of learning opportunities for adult students. Specific information is available in the Guide to Higher Education Courses for Adults in Northern Virginia, distributed three times yearly by the Office of the Consortium Administrator, 4210 Roberts Road, Fairfax, Va. 22030.
Minority Affairs

The Office of Minority Affairs, under the direction of the President’s Special Assistant for Minority Affairs, operates a program designed to enhance the service of George Mason University to minority communities. The general objective of the program is to shape the University as an educational environment which reflects and expresses the ethnic and cultural diversity of its context and which addresses the educational needs of all the people of its constituent area. The program is an integrated component of the total program of the University and is designed to affect not only the minority population but every segment of the University in a positive way.

The Minority Affairs Program has three emphases: services to students; to faculty, staff, and administration; and to the University in its relations with minority communities.

Student services are geared to the recruitment, retention, and development of students of minority groups. A special recruitment officer who is a part of the staff of the Admissions Office gives special attention to the recruitment and admission of minority group students. In the Career Planning, Placement, and Financial Aid Office a designated staff member gives attention to special financial problems which students of minority groups encounter and seeks new sources of scholarship for them. Arrangements for close counseling and tutorial assistance are provided for those students who need and desire them. While the Office of Minority Affairs coordinates these services in a unified program, the services are integrated into the administrative units to which they relate.

Services to the faculty, staff, and administration include assistance in carrying out affirmative action mandates, improvement of curriculum, and heightening awareness of minority concerns and issues.

The program also assists the University in improving its relations with, services to, and image in minority communities.

Programs of Academic Assistance

The University has established an office to develop programs to provide students with non-classroom academic opportunities for learning. Many of the programs provide specialized academic assistance to students with self-determined deficiencies. The Tutorial Program provides assistance, free of charge, to students taking courses in the University. The office is also equipped with self-instructional materials which are available to students with specialized academic needs. Programs of Academic Assistance cooperates with the academic efforts of the Writing Laboratory and the Counseling Center.

American Minority Cultures

The University provides instruction in many phases of Western and non-Western cultures. It also includes courses in American minority cultures. In addition to the courses in minority studies listed below, the University provides general courses in such subjects as American history and sociology in which a portion of each course is devoted to the place and importance of minority groups in the American culture. Courses in such subjects as music, literature, and political thought include the contributions of American minorities to the total field. Academic departments seek textbooks which adequately represent the aspirations and contributions of American minorities. The University welcomes students from all minority groups. The following separate courses in minority culture are offered at this time:

- Soci 308: Sociology of Race Relations and Minorities (3)
- Engl 386: Literature of Black America (3)
- Hist 335: The Afro-American Experience in the United States: African Background to 1865 (3)
- Hist 336: The Afro-American Experience in the United States: Reconstruction to the Present (3)
- Hist 495: Racism in the United States: A Seminar (3)

Catalogs of Other Institutions

The Office of the Registrar maintains a reference collection of undergraduate catalogs of other institutions; the Office of Career Planning and Placement makes accessible a similar collection of graduate and professional school catalogs.
At George Mason, learning is not confined to the classroom. In addition to extensive academic offerings, George Mason students find a variety of activities which allow full expression of their talents and interests.

The University encourages student participation in shaping the character and quality of the institution; it believes that cooperation of students through participation in University life is essential to the development of academic, administrative, and cultural standards beneficial to the University community as a whole.

A student is ineligible to hold elective or appointive office in any organization or activity associated with the University if his cumulative grade point average is less than 2.000. Moreover, any student on academic probation is ineligible to participate in any athletic or other activity representing the University on either an intercollegiate or club level and/or to serve as a working staff member of any student organization. It is the responsibility of the individual student to notify his organization when he becomes ineligible. The student's academic dean, however, has the authority to remove the restriction on activities, in whole or part.

Student Union

Most non-academic activities and programs at the University take place in the Student Union. The offices of Student Government, Vice President for Student Affairs, Associate Dean for Student Life, Associate Dean for Student Services, Coordinator of the Student Union, as well as those of Career Planning and Placement, Financial Aid, Counseling, Testing, Veterans Affairs, Student Publications, Student Organizations, Campus Ministry, and the Honor Committee are all located in the Union.

The Union also incorporates recreational facilities such as an arts and crafts center, game, TV, music, and card rooms and lounge areas.

On the second floor of the Student Union, banking, bookstore, and drycleaning services are available; the United Virginia Bank (938-2900), Compass Drycleaning (323-1115), and the Bookstore (323-2169) operate for the convenience of students, faculty, and staff.

Food services, supplied by Ogden Food, are available on both campuses including the new rathskeller facilities in the Student Union. For the convenience of the campus community, vending machines are also located in various buildings on each campus. For information concerning catering service, contact the Food Service Manager of the Main Campus (323-1120).

The snack bar, cafeteria, and rathskeller are on the Union lower level, with patios on both the north and south sides of the building. The Union also has a variety of meeting facilities which can be reserved through the Coordinator of the Union (323-2164).

On the North Campus, student lounges and meeting rooms are open and available during the normal class schedule. A study lounge is located in Room 107 and a student organization room on the second floor, Room 207. Organizations or individuals wishing to schedule this room should sign up on the calendar provided at the entrance to Room 207.

Students wishing to schedule meeting rooms or conferences throughout the University must do so in Room 310 of the Student Union. All Student Union reservations

http://catalog.gmu.edu
by all University groups are also made in Room 310 of the Student Union (323-2164). Most facilities may be reserved free of charge to University groups with some exceptions for support costs for special events. Union staff are available to discuss the many services (including audio, visual, general equipment, furniture needs, parking considerations, food services and banking) available in the Student Union.

Student Organizations

Student publications, student government, intercollegiate and intramural athletics, and numerous campus clubs provide opportunities for students to exercise the full scope of their talents. There are approximately 60 student organizations on campus spanning a broad range of interests: political, forensic, dramatic, musical, journalistic, scientific, recreational, business, social, religious, and fellowship. Participation in student activities is limited to bonafide registered students.

All clubs and organizations are encouraged to become members of the Student Government Club Council. Membership in the Council provides opportunities to interact with other groups, file and storage space for equipment and materials, involvement in the planning and development of activities on campus, and a channel of communication with University administration regarding student activities on campus.

Health Services

The Student Health Service, with offices on both Main and North Campuses, offers treatment of minor illness, administers first aid, dispenses non-prescription medications, provides referral services to outside health resources, offers hygienic information and counseling, and assists in administration of a program of health and accident insurance for students.

During the academic year, programs are offered with emphasis on the preventative aspects of health. Last year’s programs stressed areas such as blood pressure, Pap testing, and weight control as related to behavior modification.

Pregnancy tests and throat cultures are performed for a minimal fee. Abortion counseling and referrals are also offered.

Staffing consists of a Nurse/Coordinator, two part-time nurses, and a consulting physician.

Main Campus: Student Union, Room 355 (323-2584)
North Campus: Room 105 (323-2589)

Health Insurance

All students of George Mason University are eligible, on a voluntary basis, to enroll in the University-endorsed Accident & Sickness Insurance Plan, underwritten by the North America Assurance Society of Virginia, Inc. The policy includes provisions for major medical coverage, out-patient laboratory fees, and x-ray coverage, as well as the usual provisions for hospital room and board, surgical expenses, etc. At minimal cost to the student, this policy provides for coverage of the person insured twelve months per year, 24 hours per day, world-wide, at the University or elsewhere. Health insurance brochures, enrollment applications, and claim forms may be obtained at both North and Main Campus health offices.

Housing

On Campus. The University offers on-campus housing for 498 students. The residential complex is composed of nine, three-story structures containing 122 apartments. The 122 apartments are divided into one, two, or three bedroom units which accommodate two, four, or six students respectively. Each apartment unit has its own entrance from the outside, and includes a kitchen, bathroom, and carpeted living room in addition to the bedroom(s). Utilities, with the exception of telephone, are included in the rent. Complete information concerning the University’s on-campus housing is available from the Coordinator of Student Housing, George Mason University, 4400 University Drive, Fairfax, Virginia 22030 (703-323-2354/55).

Off-Campus. For assistance in obtaining off-campus housing, students should contact the office of the Student Housing Coordinator (703-323-2354/55).

Conduct

Academic institutions exist for the transmission of knowledge, the development of students, and the general well-being of society. Free inquiry and free expression are indispensable to the attainment of these goals. As members of the academic community, students should be encouraged to develop the capacity for critical judgment and to engage in a sustained and independent search for truth.

Freedom to teach and freedom to learn are inseparable factors of academic freedom. The freedom to learn depends upon appropriate opportunities and conditions in the classroom, on campus, and in the larger community. Students should exercise their freedom with responsibility.

The responsibility to secure and to respect general conditions conducive to the freedom to learn is shared by all members of the academic community. The University has a duty to develop policies and procedures which provide and safeguard the freedom.

George Mason University believes that the procedures, rights, and safeguards outlined below are indispensable to achieving the goals desired—freedom to teach, to learn, and to search for truth.

The University respects and is determined to protect the individual dignity, integrity, and reputation of its students. At the same time it requires that students comply with those conventions and regulations of University life which it feels are necessary to maintain order, to protect individuals and property, and to fulfill its purposes and responsibilities as a University. To this end the University realizes that the prevailing rule in matters of student discipline must continue to be that of common sense, and an excessive legalism can only disserve the University and its community of students, faculty, and staff.

A student enrolling in the University assumes an obligation to conduct himself in a manner compatible with the University's function as an educational institution. To fulfill its functions of imparting and gaining knowledge, the Code of Virginia (Section 23-9:2) confers upon the University the responsibility for maintaining order within the University and the right to exclude those who are disruptive of the educational process. The office of the Associate Dean for Student Life is administratively responsible for maintaining a system of non-academic discipline. Questions regarding student conduct should be directed to this office.
Counseling Center

George Mason University’s Counseling Center provides specialized services for student development including counseling for personal adjustment, social skills and communication enhancement, marriage and couples counseling, educational and career counseling and psychological testing for understanding how one functions as a person. Individual counseling and group workshops for personal growth and development are also available. Minority students may wish to contact the Center’s Counselor for Minority Students. The Center offers its services on a strictly confidential basis and at no charge to George Mason students.

Testing. The Counseling Center also serves as the University testing center where students may take the College Level Examination tests (CLEP), and obtain applications for the Graduate Record Examination (GRE), Law School Admission Test (LSAT), Graduate Management Admission Test (GMAT), Medical College Admission Test (MCAT), Dental Admission Test (DAT), Veterinary Aptitude Test (VAT), and the Miller Analogies Test (MAT). The Counseling Center also conducts Foreign Language Placement tests.

Career Planning and Placement

The Office of Career Planning and Placement provides a number of programs and services to assist students in making career decisions while in school and obtaining employment or graduate school admission following graduation. The Office also serves as the central clearinghouse for all part-time and summer employment notices received by the University. Major services offered to students include:

1. Career Counseling: Short-term individual or group assistance is available in identifying career options, occupational and employer research, resume writing, and interviewing skills.

2. Career Reference Library: A specialized self-help library containing occupational information on career fields related to GMU majors; graduate and professional school catalogs, government employment information; job hunting directories and guides. The library is open from 8:30 to 5:00 Monday through Friday and one evening per week.

3. Job Referral Programs: Seniors and alumni can register to receive appropriate full-time job notices received by the University. Part-time and summer job boards are also maintained for undergraduates.

4. Employer Recruitment Program: Throughout the year employers interview students on campus for career positions with their organizations.

5. Permanent Credential File: Contains references that are made available to prospective employers and graduate schools at the request of the student.

All programs and services are available to alumni on a continuing basis. In its employment assistance program, George Mason University is in full compliance with all federal and state laws governing Equal Opportunity and Affirmative Action.

Financial Aid

The University has a limited amount of financial aid available, administered by the Office of Financial Aid. The assistance consists of scholarships, grants, loans, and em-

An inevitable chapter in university life is registration. Although it may be a harrowing experience for the uninitiated, those who have been through it know that it is just a matter of following signs and filling out the necessary forms to ensure their place within the University community.
employment. Financial aid awards are based primarily upon financial need, with scholarship as a secondary consideration.

New and currently enrolled students should obtain an application for financial aid in early February. In addition, a “Financial Aid Form” in support of the application for financial aid must be filed with the College Scholarship Service.

Students may consult with a member of the office staff for financial aid counseling. Information on all programs is available in the Financial Aid Office. The following submission dates are suggested for financial aid applications:

- 1977-78 Session: May 1, 1977
- Summer 1977: April 15, 1977
- 1978-79 Session: May 1, 1978

Applications are not considered complete until both the financial aid application and the “Financial Aid Form” by the College Scholarship Service takes approximately one month, that statement should be submitted by the end of March.

**Federal Programs.** The University participates in federally-supported programs of student financial aid. The following programs are available to eligible students:

- **The National Direct Student Loan Program.** The University makes available to qualified students long term, low interest loans from the federally-sponsord National Direct Student Loan Program. Repayment begins nine months after graduation and may be deferred if one enters graduate school, the Peace Corps, VISTA, or military service.

- **Supplemental Educational Opportunity Grant.** There are available a limited number of direct grants to undergraduate students who are at least half-time, who show exceptional financial need, and who require such assistance to attend college. To receive this grant, a matching scholarship or loan must be awarded to the student.

- **The College Work-Study Program.** Funds are available to provide part-time work opportunities to students who are at least half-time to help meet college expenses. An aid applicant who is eligible for this assistance and who indicates a desire and willingness to work will be considered for a Work-Study job placement.

- **The Basic Educational Opportunity Grant.** This program makes funds available to students attending eligible post-high school institutions, according to the student’s eligibility as established by his application made directly to HEW. Students must be at least half-time undergraduates.

- **Law Enforcement Education Program.** The Law Enforcement Education Program provides financial assistance to allow state and local law enforcement personnel to continue their education at the college and university level. Grants and loans to cover tuition and fees per academic year are offered to students who qualify under the current LEEP guidelines.

- **Federal Nursing Program.** The University participates in the Federal Nursing Loan Program for students planning a career in the field of nursing. The maximum Nursing Student Loan available to an individual borrower in an academic year or its equivalent may not exceed $2,500, or the amount of the student's financial need. Cancellation of the loan is permitted under certain conditions. Federal Nursing Scholarships are available to nursing students who show exceptional financial need.

**State Loans and Grants.** The state of Virginia makes available financial assistance for Virginia residents. Most programs require students to be enrolled half-time.

- **Virginia Loans.** For example, the state provides funds to be used for long-term, low interest loans for eligible students.

- **Virginia Scholarships.** These scholarships are for students who demonstrate financial eligibility and have established a record of academic and personal achievement.

**The Virginia College Scholarship Assistance Program.** This is a student incentive grant program using both federal and state funds geared to the student’s financial need. For academic year 1977-78, full-time students who are legal residents and who are undergraduates may apply. Applications are made directly to Virginia’s Council of Higher Education; the deadline is March 31, 1977.

**State Nursing Scholarships.** The Bureau of Public Health Nursing provides limited scholarships to Virginia residents. These scholarships are based on need, and applications are made directly to the Bureau of Public Health Nursing. The deadline for previously enrolled students in a nursing program is March 15, 1977, and June 15, 1977 for new students entering a nursing program.

**Other Aid Programs**

**Guaranteed Student Loan Program.** The State Educational Assistance Authority, through participation agreements with lending institutions of the State, enables those institutions to make long-term personal loans to students to help pay their college and vocational school expenses. These loans are guaranteed to the extent of 90 percent of their principal by the Authority. Applications are made directly to the lending agency, and may be made if the student is enrolled or has been accepted for full-time enrollment. The interest rate is seven percent. In cases of limited income, the government will pay the interest until the repayment period begins. Repayment of the loan begins nine months after the student completes his academic program. The total loan may amount to as much as $2,000 per year, not to exceed $7,500 in aggregate for undergraduate work.

Under some circumstances, federally insured loans are available. The regulations governing these loans are very similar to those guaranteed by the state.

**Veterans Administration Education Loan.** This program provides funds for eligible veterans demonstrating need. Applications are made at the Office of Veterans Affairs.

**Emergency Loan Fund.** Short-term, interest-free loans are available to students through the Office of Financial Aid.

Several foundations and organizations also may provide special sources of scholarship funding. These foundations and organizations and their operations are described near the end of this catalog under the heading Foundations, Associations, Departmental Scholarships, and Awards.

**Veterans Affairs**

The University maintains an Office of Veterans Affairs to assist veterans, service personnel, dependents and survivors in obtaining authorized educational benefits. The office also provides support to veterans in adjusting to the exigencies of University life.

To assist GMU veterans, the University has a Veterans Coordinator and a Veterans Administration Representative.
available on the campus. Training time equivalents are posted on the OVA bulletin boards in the Student Union Building, third floor.

Veterans should contact the office as soon as the catalog comes out for the semester or summer session and when they are sure of the number of hours to be carried in a particular semester or summer session.

Veterans Educational Benefits

In order to receive monthly Veterans Educational Benefits while attending the University the following steps should be followed:

1. Veterans must originally apply on Form 22-1990. This application should be turned in to the Veterans Office on campus with a copy of the student’s DD 214. Active duty personnel must use Form 22-1990a.

2. Students who have received benefits from another school or who are changing either their type of program or course objective, must fill out a 22-1995, Request for Change of Program or Place of Training, and submit it to the Veterans Office. These forms are available at the Veterans Office on campus.

3. It is important to remember that after initial enrollment, students must request the Veterans Counselor to send an enrollment certificate to the VA each school year (each semester, if the student is under 1/2 time or on active duty). Students attending a summer session who want to receive benefits must send an additional enrollment certificate.

4. It is each student’s responsibility to notify the Veterans Office on campus of any change in status. Such changes include:
   a. Adding or dropping courses
   b. Change in marital status
   c. Addition of a child or additional children
   d. Change of address (immediately)
   e. Withdrawal from school—notify immediately (return all VA checks to the Treasury address on the envelope).

   All of the above are each student’s responsibility; the forms to effect these changes are available at the Veterans Office on campus.

5. Students with a complaint, such as a late check, should contact the Vet Rep or Veterans Counselor on campus. Veterans should keep their VA file number handy to aid in taking care of problems. VA payments are paid on the following basis:

<table>
<thead>
<tr>
<th></th>
<th>Undergraduate</th>
<th>Graduate</th>
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<tbody>
<tr>
<td>Full time</td>
<td>12 hours</td>
<td>9 or more hours</td>
</tr>
<tr>
<td>3/4 time</td>
<td>9-11 hours</td>
<td>6, 7, 8 hours</td>
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<tr>
<td>1/2 time</td>
<td>6-8 hours</td>
<td>4, 5 hours</td>
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<tr>
<td>less than 1/2, more than 1/4</td>
<td>4-5 hours</td>
<td>3 hours</td>
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<tr>
<td>1/4 time</td>
<td>less than 4 hours</td>
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Active duty servicemen and those taking fewer than 6 undergraduate or 4 graduate hours are paid either tuition and fees or the rate set for the training time, whichever is less. Books and supplies are not included.

Chapters 34 and 35 of P.L. 94-502 have increased the amount of benefit entitlement from 36 to 45 months, not limited to a standard undergraduate degree.

Veterans Educational Loan

The amount of VA loan which can be approved is determined by the amount the student’s educational expenses exceed his or her available financial resources. The VA has increased the education loan amount to $292 multiplied by the number of months of remaining entitlement to a maximum of $1,500 per year. Further information can be obtained at the Veterans Affairs Office.

Tutorial Services

The VA will pay $65 per month, not to exceed $780, for needed tutorial services.

Cooperative Education

George Mason University has established a Cooperative Education Program which is designed to provide qualified students with the opportunity to integrate classroom study with practical experience in their major field. Under the program, students have specific periods of attending class and specific periods of field assignments with public or private employers who offer educationally valuable work experiences.

Features of the Program include:

1. The pattern of on-the-job training experiences and classroom studies gives greater meaning to college courses.
2. In the non-academic world, the student has available specialized facilities and equipment.
3. Adding work to the study program develops confidence, maturity, responsibility, and skill in human relations.
4. While still in college, the student may insure greater career satisfaction by sampling fields before making a commitment.
5. By graduation the student may have more than a year of professional experience.
6. The student earns part of the cost of his education.

There are two plans of field assignments available to students under Cooperative Education: the alternating plan and the parallel plan. Under the alternating plan, the student alternates full time field assignments with full time class attendance. Under the parallel program, the student spends part of his or her day at the field assignment and part of the day at class. Both plans provide for compensation by the employer. Students who have successfully completed a Cooperative Education work phase with a Federal agency qualify for non-competitive appointment upon completion of the requirements for a baccalaureate degree.

Students are urged to contact and make application with the Office of Cooperative Education well in advance of their junior year.

Athletic Activities

The intercollegiate program at George Mason University offers competition between the University and colleges in Virginia and other states on the East Coast. Men’s intercollegiate competition includes cross-country, track and field, soccer, basketball, wrestling, volleyball, fencing, baseball, golf and tennis.

The GMU men’s program is a member of two national athletic organizations—the National Collegiate Athletic Association (NCAA) and the National Association of Intercollegiate Athletics (NAIA). The Patriots also participate in the Mason-Dixon Intercollegiate Athletic Conference (MDIAC) with additional outside competition.
furnished by American University, the University of Virginia, George Washington University, Howard University, Georgetown University and Catholic University.

The Women's intercollegiate athletic program, under the direction of the Coordinator of Women's Athletics is a new and rapidly growing part of the total athletic program. Competitive sports for women are conducted in tennis, volleyball, basketball and fencing while coeducational competition is provided in cross-country and track and field. Future plans tentatively include field hockey, softball, swimming, crew and gymnastics.

GMU is affiliated with the Association of Intercollegiate Athletics for Women and the Virginia Federation of Intercollegiate Sports for Women and participates in the small college conferences against schools in Virginia, Maryland and the District of Columbia.

The 1976 women's volleyball team was small college champion in Virginia and represented the state in Southern Region II championship in Kentucky.

The men's program was ranked 19th nationally (NAIA) for overall athletic excellence during 1975-76. The baseball, basketball, tennis, cross-country, golf and volleyball teams participated in national and regional post-season tournaments to help establish the finest record of athletic achievement in the school's history.

A growing intramural program enables men and women to participate in a variety of athletic activities of their choice.

Campus Ministry

The Campus Ministry Association is an ecumenical group of chaplains of Judaean-Christian orientation concerned with being of service to the George Mason University community. Chaplains are available for counseling for religious, educational, and social activities, for community service and social action, including working for the alleviation of hungry and starving peoples world-wide. The organization is sponsored by Catholic, Jewish, and Protestant efforts.

Chaplains are on campus daily for discussion and assistance of any kind for all members of the University community. The Campus Ministry Office is located in the Student Union, Main Floor, Room 229 (323-2160).

Motor Vehicles

The privilege of operating and parking a motor driven vehicle at George Mason University is extended to all students, subject to the following procedures:

Vehicles must be registered with the Department of Security. At time of registration the student must certify that (a) the vehicle has a valid state registration and valid insurance from a recognized insurance company evidencing coverage for public liability in conformance with the laws of the Commonwealth of Virginia; (b) the student has a valid state driver's license, and (c) the student understands that he or she will be governed by University Motor Vehicle and Traffic Rules and Regulations, a copy of which will be furnished at time of registration of vehicle. A fee of $1.00 will be charged for the first vehicle registered by the student. After the initial vehicle registration, the student may register two additional (family) vehicles without charge. Every registered vehicle shall display in full view the University's vehicular registration decal, which shall be affixed immediately upon issuance to the left half of the rear bumper. The decal is valid for the period September 1-August 31 of the specified year.

Firearms

The unauthorized possession, storage, display, or use of any kind of ammunition, firearms, fireworks, explosives, air rifles, air pistols or other lethal instruments is prohibited on University property. Any questions regarding this regulation should be directed to the Department of Security.

Solicitors and Salesmen

Solicitors and salesmen, except on official business with the University, are not permitted on the campus without permission of the Business Office.

Pets

No pets will be permitted in University Buildings at any time. Additionally, pets which are on campus grounds will be on a leash and under supervision at all times.

Non-University Publications

George Mason University students may publish and/or disseminate publications on campus which are not funded by the Publications Board, if they are not in violation of state or local ordinances. Students should exercise this option responsibly. The University assumes no responsibility for the contents of the material published and/or disseminated. Distribution of publications on campus does not signify that the University necessarily approves or supports the contents of the publications.

Reserving University Facilities

Individuals or groups of students and organizations wishing to utilize University facilities for non-academic events must complete a reservation form in Room 310 of the Student Union prior to the assignment of space. Approval is then given subject to the procedures outlined in the George Mason University Administrative Procedures Manual, which states that responsibility for determining availability of space is delegated to the following offices:

1. Student Union facilities and cafeterias (Main and North Campus) - Associate Dean for Student Life;
2. Lecture Hall, North Campus Auditorium, and classrooms - University Registrar;
3. Physical education/athletic facilities - Coordinator of Athletic Facilities;
4. Outdoor spaces other than physical education/athletic facilities - Director of Facilities Planning.

All reservations should be submitted at least two weeks prior to the date of the event. Earlier notification is recommended, however. For additional information regarding the scheduling of activities, call 323-2164.
Honor System

Until 1972 George Mason University was part of the University of Virginia. As such, the Honor System takes its beginnings back to 1842. As originally formulated in 1842, the Honor System at the University applied only to final written examinations. Through its more than a century of continuous use, the pledge has been extended to all academic work submitted for credit, statements made to the faculty, and other declarations of good faith or intent. Considered reprehensible under the system are lying, cheating, plagiarism, and stealing.

George Mason University established its Honor System on May 14, 1972. It is recognized and approved as an integral part of the University. The essence of the code is that a student's word can be accepted in academic matters without question as truth and that any violation of a student's word is an offense against the Honor Code.

All students and faculty in the University have the duty as participating community members to report to a member of the Honor Committee any alleged violations of the Honor Code. This duty is of importance not only because it enforces the Honor Code, but also because it gives each student the opportunity to express respect for personal integrity and an honest academic community.

The Honor Code is administered by the Honor Committee which is independent of the Student Government and the University's administration. The Honor Committee is a group of students elected from the student body whose primary and indispensable duty is to instill the concepts and spirit of the Honor Code within the student body. The secondary function of this group is to sit as a hearing committee on all alleged violations of the code.

At the beginning of each semester each faculty member has the responsibility to delineate to all his classes his own, as well as departmental, policy pertaining to the Honor Code. In addition, each department has a designated liaison to the Honor Committee who is available to answer most questions which may arise. A statement of willingness to conform to and uphold the Honor System is included in the application form for admission to the University.

The Student Union serves as the community center of the University, providing a wide variety of services and conveniences for all members of the campus family, and hosting most of the non-academic programs and co-curricular activities which take place on the campus. The Union is more than just a building—it is people coming together to share in each other and in the environment of George Mason University.
Honor Code

2. Extent of the Honor Code

The Honor Code of the George Mason University shall deal specifically with:
- Cheating and attempted cheating
- Plagiarism
- Lying
- Stealing

Cheating encompasses the following:
- The willful giving or receiving of an unauthorized, unfair, dishonest, or unscrupulous advantage in academic work over other students.
- The above may be accomplished by any means whatsoever, including but not limited to, the following: fraud, duress, deception, theft, trick, talking, signs, gestures, copying from another student, and the unauthorized use of study aids, memoranda, books, data or other information.

Plagiarism encompasses the following:
- Presenting, as one's own the words, the work, or the opinions of someone else without proper acknowledgment.
- The borrowing of the sequence of ideas, the arrangement of material, or the pattern of thought of someone else without proper acknowledgment.

Lying encompasses the following:
- The willful and knowledgeable telling of an untruth or falsehood as well as any form of deceit, attempted deception, or fraud in an oral or written statement relating to academic work.

Stealing encompasses the following:
- The taking or appropriating without the right or permission to do so, and with the intent to keep or to make use of wrongfully, property belonging to any member of the George Mason University community or any property located on the University campus.

3. Responsibility of the Faculty

In order to alleviate misunderstanding, each professor is required to delineate at the beginning of each semester what constitutes a violation of the Honor Code in his class. This should include an explanation of:
- a. the extent of group participation that is permissible in preparing term papers, laboratory exhibits or notebooks, reports of any kind, tests, quizzes, examinations, homework, or any other work
- b. the extent to which the use of study aids, memoranda, books, data or other information is authorized during recitations, tests, quizzes, examinations, reports of any kind, laboratory sessions, or any other work, and
- c. the nature of plagiarism.

Any faculty member who witnesses an Honor Code violation should proceed as outlined under Procedures for Reporting a Violation.

4. Responsibility of the Students

Students should request a delineation of policy from each professor if none is given at the beginning of each semester. Students should also request an explanation of any part of the delineation that they do not understand. It is the responsibility of the student to understand his professor's policies with regard to the Honor Code. It is also the responsibility of the student to understand the provisions of the Honor Code.

All students in the University have the duty as participating members of this community to report to a member of the Honor Committee any violations of the Honor Code. This duty is of importance not only because it enforces the Honor Code, but also because it gives each student the opportunity to express his respect for personal integrity and an honest academic community.

5. Procedure for Reporting a Violation

Any student or faculty member witnessing a violation of the Honor Code shall enlist, wherever and whenever possible, one or more corroborating witnesses to the overt act. The accused(s) [student or faculty], will inform the suspected party of the accusation in writing and inform him that he has forty-eight hours in which to contact a member of the Honor Committee and request a hearing or to withdraw from school. After these forty-eight hours,
if he has not withdrawn or requested a hearing, the accuser(s) shall submit a written accusation to the Honor Committee.

6. Counsel for the Accused and Accuser
Counsel for the accused and accuser may be provided by any member of the George Mason University academic community, including members of the Honor Committee.

7. Appearance of Witnesses
The Honor Committee may request any member of the University community to appear as a witness before the Committee at the time of the hearing. All requests shall be issued by the Chairman of the Honor Committee.

8. Verdict
In order to find a student guilty of an honor violation, all of the voting members must vote for a verdict of "guilty." If the vote is not unanimous, the defendant shall be acquitted.
A student may not be tried more than once for the same offense except when an appeal is granted.

9. Penalty
If the accused is found guilty of an honor violation, the Honor Committee shall determine the nature of the penalty by majority vote.
The Honor Committee is not restricted to any one kind of penalty but will determine a penalty commensurate with the seriousness of the offense. Typical of the range of penalties which may be given are:

Oral Reprimand:
An Oral statement to the student by the Chairman of the Honor Committee. No entry is made on the student’s scholastic record.

Written Reprimand:
A written censure which is placed in the confidential files of the Honor Committee, but is not made part of the student’s scholastic record.

Non-Academic Probation:
Exclusion from holding an elected or appointed office in any student activity or organization. A student on non-academic probation will be ineligible to participate in any athletic or other activity representing the University and will be ineligible to serve as a working staff member of any student organization. This action is noted in the Dean of Students’ file but is not made a part of his scholastic record.

Failing Grade:
Recommendation in writing to the instructor of a grade of "F" for the work involved or for the entire course is made. The student’s permanent record will reflect the academic evaluation made by the instructor.

Suspension from the University for One or More Semesters:
A student’s scholastic record would read: "Non-academic suspension from _______ to _______."

This penalty will be given only in extraordinary circumstances, such as for repeated offenses.

10. Appeal
An appeal for a new hearing may be made based on the assertion that new evidence is available (the Appeal Board will consist of at least three voting members). If a new hearing is granted, no voting member from the original hearing may vote in the second or subsequent hearings of the same case.

11. Keeping of Records
In the event that the accused is found "not guilty," the Chairman of the Honor Committee will destroy all records of the hearing. If the accused is found guilty, the records of the hearing shall be kept in the file of the Honor Committee. These records shall include a full transcript of the hearing and all evidence presented at the hearing; if this evidence belongs to any person other than the defendant, the original shall be returned to the owner and a copy shall be kept with the records of the Honor Committee.

12. Composition of the Committee
The Honor Committee shall consist of the following members: two graduate students, five seniors, four juniors, three sophomores, three freshmen, and the faculty advisor(s), although the latter shall be a non-voting member. One or more clerks will be appointed by the Committee from the student body who will serve as aids to the Chairman.
The Chairman of the Committee will be elected by majority vote of the Committee members. For a particular hearing, five members of the Honor Committee will be designated as voting members.
The Faculty Advisor, as a non-voting member of the Committee, should sit with and advise the Committee at all hearings. The Faculty Advisor shall be chosen by the Honor Committee.
Previous Honor Committee members may serve during the summer term.

13. Eligibility of Members
Any student who maintains a 2.0 grade-point average and is in good standing with the University shall be eligible for the Honor Committee. A Committee member must maintain a 2.0 average to continue in office.

14. Election of the Honor Committee
In the spring semester, five juniors, four sophomores, three freshmen and two graduate students shall be elected. The term of office shall begin upon election and run until the following spring elections.
In the fall semester an election shall be held to fill any vacancies that have occurred and to elect three freshmen to serve until the following spring elections.
If a vacancy occurs between elections, it may be filled by a majority vote of the remaining members.

15. The Challenging of and Voluntary Withdrawal of a Member of the Committee from Participation in a Particular Hearing
Any accused who challenges the right of any member of the Honor Committee to sit in judgment on him must present cause to the Chairman.
The Committee shall then decide the validity of the challenge with the challenged member abstaining from voting. A simple majority shall decide the validity of any challenge. A successfully challenged Committee member shall not be present during the hearing.
A member of the Honor Committee shall withdraw from a specific hearing if he feels that he is prejudiced as to the facts in the case.

16. Provision for Amendments
Upon petition of 20% of the student body, a committee shall be appointed by the Student Government to consider amendments to, or revisions of the Honor Code, said amendments and/or revisions to be then voted on by the student body as a whole. A two-thirds majority of the votes cast shall be necessary for acceptance of any amendment or revision.
It is further provided that every third year the Student Government shall appoint a committee to review the Honor Code in an effort to keep it currently applicable. Any changes deemed necessary shall be implemented in the manner described in the above paragraph.
The Honor Committee may also propose amendments to be voted on by the student body as described in paragraph one of this section.
Approved amendments will take effect immediately except that new provisions will not be applied to cases initiated prior to amendment.
Admissions

Application should be made to the Office of Admissions, George Mason University, on forms which are provided upon request. A non-refundable fee of $10.00 must be attached when the application form is submitted.

To be assured of consideration, applications should be submitted no later than July 1 for fall admission and December 1 for spring admission. Students with honor grades in secondary school and good Scholastic Aptitude Test scores or the equivalent taken in May of their junior year may qualify for early admission decisions on the basis of a three-year record. Regular admission decisions will normally be made after the first-semester grades of the senior year and all necessary prescribed test scores have been received by the Office of Admissions. Admission is contingent upon satisfactory completion of the requirements discussed in this section and successful completion of the senior year of high school. Enrollment in the Summer Session does not constitute admission to a regular (fall-spring) semester.

All freshman candidates for admission are required to take the Scholastic Aptitude Test given by the College Entrance Examination Board, or the College Entrance Examination given by the American College Testing Program. December or January tests are recommended. Applicants must register at least three weeks before the testing date by mailing a registration form and fee to a College Board Office,* or through their area high school. The examination will be given in test centers throughout the United States and abroad. Both descriptive information about the test and registration blanks are available without cost to applicants. Requests should be addressed to either of the board's offices.

Applicants for admission are considered individually, in accordance with the following criteria:

1. Evidence of academic achievement and promise with considerable facility in the use of the English language and with an understanding of the fundamental mathematical processes.

2. Complete record from an accredited secondary or preparatory school with graduation based on no fewer than 15 units (see subject matter requirements below).

3. Satisfactory scores on the Scholastic Aptitude Test given by the College Entrance Examination Board or equivalent examination.

4. Senior class rank (should be in the upper sixty percent).

These criteria and those which follow are applied flexibly to assure that people with unusual qualifications are not denied admission. Such people should seek a personal interview. Otherwise, personal interviews and recommendations are not required unless requested by the Director of Admissions.

Candidates who are approved for September admission must notify the University whether they wish to accept or decline this offer. Failure to comply may affect adversely the candidate's reserved space for attendance.

The University reserves the right to withdraw any offer of admission if the applicant fails to satisfy all requirements prior to the closing of spring or fall registration.

The admission of nursing program applicants to the University for the 1978-79 academic year may need to be

*Address of the College Board Offices: Box 592, Princeton, New Jersey 08540, or Box 1025, Berkeley, California 94701.
limited. Should this become necessary, selection decisions will be made on the basis of potential for success in the nursing program.

Medical Report
All students approved for admission are required to complete a health form provided by the University.

Admission from Secondary School
Programs other than Engineering
For admission to programs other than engineering, an applicant must take the Scholastic Aptitude Test given by the College Entrance Examination Board and must present not fewer than 15 units of high school work, usually in the following academic fields:

- English ........................................ 4 units
- Mathematics .................................. 3 units\(^1\)
- Foreign Language .............................. 2 units\(^2\)
- Social Studies ................................. 1 unit
- Laboratory Science—Biology, Chemistry, Earth Science (ESCP), or Physics ............................ 1 unit
- Electives ....................................... 4 units
- Minimum Total ............................... 15 units

Two-Year Engineering Program
For admission as a student in the two-year engineering program, an applicant must take the Scholastic Aptitude Test given by the College Entrance Examination Board and must present 16 units from high school, usually in the following fields:

- English ........................................ 4 units
- Mathematics .................................. 3-1/2 units\(^4\)
- History ......................................... 1 unit
- Science ......................................... 2 units\(^5\)
- Electives ....................................... 5-1/2 units\(^6\)

Because the experience of the University has shown that certain subjects are more useful to the engineering student, their inclusion in the high school programs of applicants is strongly recommended, although not required. These subjects include: additional mathematics, American and modern European history, English and American literature, physics, chemistry, biology, geography, foreign languages, and mechanical drawing.

\(^1\) Or the College Entrance Examination of the American Testing Program.

\(^2\) These units must be selected from Algebra I, Algebra II, geometry, trigonometry, probability, and elementary calculus.

\(^3\) No credit is allowed for fewer than two units in one foreign language.

\(^4\) These units must be two of algebra, one of plane geometry and 1/2 unit of advanced mathematics—trigonometry, solid geometry, or advanced algebra.

\(^5\) Chemistry and physics are recommended.

\(^6\) Not more than four units of vocational subjects relevant to engineering will be accepted.
Admission from Another College

The University accepts qualified students by transfer from other colleges. An applicant for admission who has attended an institution of collegiate rank for any period of time should request the registrar of each institution he has attended to send an official transcript of his record to the Office of Admissions, George Mason University. A complete secondary school record will ordinarily be required. Students transferring from vocational programs or non-accredited institutions normally will be expected to meet the University’s requirements governing initial admission from high school.

Application for admission may be considered if the transfer student:
1. is not presently on social or academic probation at another institution,
2. generally has an average of at least “C” in the institution from which he wishes to transfer,
3. has not been suspended or dropped from another institution.

Transfer students should note the requirements shown under the heading “Credits Earned at Other Colleges.”

Foreign Students

Applications are considered from students who are not United States citizens under the following conditions:
1. That they are currently residing in the United States on a bona fide student or other visa (except for visitor visas).
2. That they have completed the TOEFL (Test of English as a Foreign Language) and attained a score of not less than 550.
3. That they make the necessary arrangements for a personal interview with the Director of Admissions.

Conditional Admission

Applicants for admission to George Mason University who are offered admission on a “Conditional” status must:
1. complete a full program of course work (12-17 credit hours) during the first semester of attendance and maintain an overall “C”/2.000 average, if they are full-time students; or
2. must maintain the same average in 12 credit hours through two consecutive semesters, if they are part-time students. A student who fails to fulfill the prescribed condition will not be permitted to re-enroll but may petition for readmission after a lapse of one calendar year.

Admissions Advisory Committee

The University maintains a faculty committee to review admission decisions and appeals.

Other Stipulations

The Admissions Office or the Admissions Advisory Committee may make other stipulations or recommendations regarding the admission of an individual.

Extended Studies Enrollment

Extended Studies Enrollment (see, Extended Studies) allows individual students who may not meet regular undergraduate or graduate admissions criteria, or for whom these criteria are inappropriate, to enroll in any on- or off-campus course(s) for which they are qualified without seeking admission to the University. Although extended studies enrollees may apply for regular admission at any time, any extended studies enrollee who maintains at least a “C” average for 15 semester hours is eligible for admission.

Project Ahead

Military personnel may sign up for Project Ahead once they have been accepted at George Mason. Project Ahead allows students to earn credit at other schools while in the military. The usual rules governing transfer of credit, credit to be earned at other colleges, and residency apply to Project Ahead students.
Tuition and Fees

Office (Cashier) including payment of all previous financial obligations still outstanding.

Deferred Payment Plan
There is a deferred payment plan available for students whose tuition and fees for the semester exceed $200.00. The student must pay at least $200.00 of the tuition and fees as the initial payment, with the remaining tuition and fees payable in two equal installments. Students using the deferred plan must come to the Cashier’s Office to make the initial payment and sign a deferred payment contract. Bills for installment payments will not be prepared. It is the student’s responsibility to ensure payments of his installments on or before the due dates published. Contracts will not be mailed to students.

Failure to make any tuition and fees payment on or before the due date results in a late charge of $5.00 per day, up to three days. Students who have not made payment within three days following the due date will be placed on financial probation for a period of 10 calendar days. If satisfactory arrangements have not been completed by the end of the probationary period, the student will be placed on financial suspension without further notice.

Due Dates
First Semester: second and third payments due October 7 and November 11, 1977. Second Semester: second and third payments due February 24 and March 24, 1978. Payments must be received in the Cashier’s Office on or before the due date.

Checks
Checks in payment of tuition, fees, fines or other obligations to the University should be made payable to George Mason University. Second party checks are not acceptable; pay checks from local business firms payable to the student are the exception to this rule.

Any check returned to the University by the bank will result in a $5.00 penalty fee for the payer. Further, the student who fails to make good such a check within five calendar days following notification by the Business Office will be placed on financial suspension without further notice.

Failure to Meet Financial Obligations
Students who fail to meet any financial obligation to the University will be placed on financial suspension. These obligations include tuition and fees, emergency loans, traffic fines, library fines, and all related penalties.

Financial Suspension
Students on financial suspension will have all academic credit withheld. This means that no transcript of record will be issued, no diploma will be released, and no registration for a subsequent semester or term will be permitted. These penalties will be removed upon payment in full of the amounts owed.

Refunds
Tuition, less an administrative charge of $20.00, will be refunded in the event a student cancels registration before the beginning of the semester, or withdraws within the
How to Figure
Your Semester Tuition and Fees Costs

<table>
<thead>
<tr>
<th>Credit Hours</th>
<th>In-State</th>
<th>Out-of-State</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$32</td>
<td>$62</td>
</tr>
<tr>
<td>2</td>
<td>64</td>
<td>124</td>
</tr>
<tr>
<td>3</td>
<td>96</td>
<td>186</td>
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<td>4</td>
<td>128</td>
<td>248</td>
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<tr>
<td>5</td>
<td>160</td>
<td>310</td>
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<td>6</td>
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<td>7</td>
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<td>8</td>
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<td>9</td>
<td>288</td>
<td>558</td>
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<tr>
<td>10</td>
<td>320</td>
<td>620</td>
</tr>
<tr>
<td>11</td>
<td>352</td>
<td>682</td>
</tr>
<tr>
<td>12 through 17</td>
<td>384</td>
<td>744</td>
</tr>
<tr>
<td>For each additional hour over 17 add:</td>
<td>32</td>
<td>62</td>
</tr>
</tbody>
</table>

bulletin boards and at the Cashier's Office. It is the student's responsibility to be familiar with the graduated refund scale.

Off-Campus

Students enrolling in off-campus courses are assessed tuition and fees at the same rates as those established for on-campus courses.

Other Required Fees

Deposits. Each student enrolled in a laboratory course (Chemistry) is required to purchase from the Cashier one laboratory card priced at $5.00. Cards must be purchased the second week of classes within the semester. This is intended to cover breakage or loss of any equipment by the student. As such loss(es) occur, the card is "punched" for the cost of the item in question. Unused portions of the card will be redeemed upon presentation to the Cashier at the end of the second semester (but no later than June 30, 1978).

Transcript Fee. A fee of $2.00 is charged for the first copy of each transcript of record when requested by the student, and $1.00 for each additional copy ordered at the same time. Payment must accompany the request.

Motor Vehicle Registration Fees. All students who desire to park their vehicles on University property must register them with the University's Security Office and pay a fee of $1.00 for a parking decal. (See Regulations on Motor Vehicles).

Eligibility for In-State Tuition

In order to be eligible for reduced tuition charges, a person must have been domiciled in Virginia for a period of at least one year prior to registration for the semester for which a reduced charge is sought. A person becomes domiciled in Virginia when he is legally capable of establishing a domicile and is present in Virginia with the unqualified intention of remaining here permanently.

The domicile of an unemancipated minor may be the domicile of either parent; provided, however, that if one parent has custody, the domicile of an unemancipated minor shall be the domicile of the parent having custody.

Domicile, however, is primarily a question of intent and the burden of proof of domicile is upon the student seeking the benefit of reduced tuition. Students who wish additional detailed information on domicile should contact the Office of Admissions.

Credits Earned Elsewhere

A few George Mason University degree programs include academic credits which students must earn at other institutions. Students enrolling for academic credits at other institutions assume all financial responsibility for these arrangements.

Tuition and Fees

<table>
<thead>
<tr>
<th></th>
<th>In-State Students</th>
<th>Out-of-State Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application Fee</td>
<td>$10.00</td>
<td>$10.00</td>
</tr>
<tr>
<td>Tuition and fees, full-time (12 through 17 semester-hours) per semester</td>
<td>384.00(a)</td>
<td>744.00(a)</td>
</tr>
<tr>
<td>Tuition and fees, part-time (11 semester-hours or less) per semester, per hour</td>
<td>32.00</td>
<td>62.00</td>
</tr>
<tr>
<td>Laboratory Breakage Deposit</td>
<td>5.00(b)</td>
<td>5.00(b)</td>
</tr>
<tr>
<td>Graduation Fee</td>
<td>15.00</td>
<td>15.00</td>
</tr>
<tr>
<td>Special Registration Fee</td>
<td>15.00(c)</td>
<td>15.00(c)</td>
</tr>
<tr>
<td>Private Instruction (music)</td>
<td>(d)</td>
<td>(d)</td>
</tr>
</tbody>
</table>

(a) For each additional hour over 17 hours add $32.00 for in-state and $62.00 for out-of-state per hour.
(b) Chemistry only. Same laboratory card may be used for both semesters.
(c) See Application for Degree.
(d) $105.00. Music: 14 one-half hour lessons. Fee is non-refundable after 30 calendar days. Refund prior to completion of 30 days is $75.00.
Students will be billed for private instruction after the semester begins. Charges may be paid in full or in two (2) installments upon receipt of bill. Those desiring to pay by installment must come to the Cashier's Office to make the first payment and sign a deferred payment contract for the balance.
Academic Policies and Procedures

It is each student's responsibility to know all the rules, regulations, requirements, and academic policies of George Mason University. If doubt should arise with regard to any matter, it is the further responsibility of the student to consult with a faculty adviser or the dean of his college.

Credit and Grades

University course work is measured in terms of quantity and quality.

Semester-Hour

A semester-hour normally represents one hour per week of lecture recitation or not less than two hours per week of laboratory work throughout a semester. Using the semester-hour as the unit of credit, the number of semester hours is a measure of quantity.

A-B-C-D-F

The grade is a measure of quality. The University recognizes four passing grades: "A," "B," "C," and "D." Grade "F" signifies that the work was failed. Academic achievement of a student in a course is generally rated as follows: "A" (excellent), "B" (good), "C" (satisfactory), "D" (poor), and "F" (failure).

A-B-C-No Credit

A student successfully completing English Composition and Introduction to Literature (101, 102) or Composition for Foreign Students (100) will be graded either "A," "B," or "C"; a student who does not attain a level of at least a "C" in these courses will receive "No Credit" (NC). These courses will not be entered on a student's permanent record, nor may they be used to fulfill degree requirements, until a minimum grade of "C" is attained.

Incomplete

In instances in which a student otherwise passing a course is for some cause, beyond reasonable control, unable to complete the work of the course on schedule, the instructor may assign a temporary grade of "IN" (Incomplete).

An "IN" grade must be converted to a passing grade by the end of the drop period of the semester following the one in which the Incomplete grade is given, otherwise the Incomplete will be automatically changed to "F." Under unusual circumstances, an exception may be granted beyond this time if a written plan to complete the work has been approved by both the instructor and department chairman and submitted to the dean of the college (in which the course is taught) for his approval within the first two weeks of the semester following the one in which the Incomplete was given. This plan must clearly indicate the date of the completion of all required work and in no case may this date be beyond the end of the regular semester within which the course is next offered.

Credit without Grade

Each student who is a candidate for a degree at the University, having earned a minimum of 54 semester-hours and being in good academic standing, may during his total remaining program elect to take not more than two one-semester courses for credit without grade. The courses selected may not be within the field of major concentration and may not be advanced in satisfaction of any degree...
requirement except that requiring a total of 120 semester-hours of credit for graduation and may not include a course for which a previous grade of "F" has been received. For enrollment in a course under this provision, a student must meet the stated prerequisites and secure in advance of enrollment permission of the instructor. Permission Request Forms are available at the Office of the Registrar. Any student so enrolled will be regarded as a regular member of the class for all academic purposes, and to receive hours of credit toward graduation must demonstrate, in the judgment of the instructor, attainment of a passing level of achievement ("P"). The credit-without-grade minimum level of passing is "D." A student who is majoring in the field will be given enrollment priority over students enrolling for credit without grade. Hours earned in such courses will not enter into determination of the student's grade point average; courses taken for credit without grade are not considered when computing a student's grade point average.

**AB and SP**

A student who has received an excuse from the dean of his college to be absent from a final examination may receive a grade of "AB." The "AB" automatically becomes "F" within ten days after the date of regular examination if the delinquent testing has not been completed. The grade of "SP" will be given by the dean of the appropriate college, or by his designated representative, to a student faced with a delinquency because of very special circumstances such as a major illness.

**Audit**

Auditing a course requires the permission of the chairman of the department in which the course is offered. This permission should be secured in advance of enrollment. A student may not change from credit to audit status after the Add period. A previously audited undergraduate course may be taken for credit at a later date. A student may also audit a course previously taken and passed. The usual University fees apply to audit status.

**Grade Point Average**

To compute an average of the quality of work for a semester or for an entire program, grade points for each semester-hour are assigned on a scale of four for "A," three for "B," two for "C," one for "D," and zero for "F." A grade point score is computed by multiplying the value of the letter grade by the number of credits for the course. As an example, a student receiving an "A" in the first semester of English (a three-semester-hour course) earns 12 grade points. The grade point average is computed by dividing the number of grade points earned at George Mason University by the number of semester-hours attempted.

"B," "NC," "SP," and "Audit" do not affect the grade point average. "AB" and "IN" have the same effect as "F."

**Semester Excluded from GPA**

An undergraduate student who has been on academic probation or suspension at George Mason University may petition the registrar to have one semester of his George Mason work excluded from all future computation of his cumulative grade point average. In order for the petition to be approved the student must attain a minimum of a 2.500 grade point average for the first 24 credit hours earned following the semester to be excluded.

**Grade Reports**

Reports are sent at the end of each semester to the parent or guardian of each student unless the student is over 18 years-of-age or married, in which case the reports are sent directly to the student.

**Appeal of Grade**

Although it is generally acknowledged that the individual faculty member is the best judge of performance by students in his class, there may be instances in which a student feels that his grade has been assigned unfairly. In such cases the student should first ask the instructor to reconsider the grade. If the student remains dissatisfied, he may appeal the matter to the departmental chairman. Upon receiving an appeal, the chairman should ask the student to return to his instructor for further consultation. If the instructor and student remain unable to reach a mutually satisfactory agreement and if the chairman believes that the student may have a legitimate complaint, the chairman will form a committee of three faculty members who are peers of the instructor who assigned the grade. The instructor or the student may each challenge and have replaced one of the three members of the committee without giving a reason for his challenge. The committee will meet separately with the instructor and with the student to explore the full particulars of the case. Every effort will be made to avoid an adversary relationship. After the committee has reviewed the case thoroughly, it will issue to the chairman (with a copy to the faculty member) a written recommendation including the reasons for its findings. At this time, the faculty member will have an opportunity to take the recommended action, if any. If the matter is not resolved at this point, the chairman will consider the committee recommendation and forward his own to the dean. If the dean decides that a change of grade is appropriate and the faculty member refuses to make the change, then the dean may order the registrar to do so. Chairmen will not normally accept grade appeals after the end of the semester following that in which the grade is recorded.

**Classification of Students**

Classification of students is determined by class standing as follows: sophomore, 24 semester-hours; junior, 54 semester-hours; senior, 84 semester-hours.

**Placement and Proficiency**

**Foreign Language Placement Testing**

The foreign language placement tests are administered by the University Counseling Center in French, German, Latin, Russian, and Spanish. The testing dates for 1977-78 are listed in the academic calendar at the front of this catalog. Students are asked to register for testing no later than four weeks in advance by calling 323-2231.

The placement test is mandatory for entering freshmen who offer at least two high school entrance credits in the foreign language and who (1) want to register for a 153-level course or higher; and/or (2) wish to fulfill the foreign language area requirement by examination and earn academic credit in the process. Students with two or more years of high school instruction in the foreign language who nevertheless feel that their proficiency is inadequate for successful participation in a higher-level course may register for courses numbered 101 or 151 without having taken the placement test.

Transfer students who have not received credit for college-level foreign language study are subject to the same
regulations that apply to entering freshmen, as outlined above. Transfer students who have received credit for college-level foreign language study should consult the Department of Foreign Languages and Literatures to determine their correct placement. In some cases testing may be required to effect this determination.

All students are urged to complete elementary and intermediate foreign language courses in immediate succession, for example: first semester, 151; second semester, 152; third semester, 251; or first semester, 153; second semester, 251.

Advanced Placement Program with Credit
First semester freshmen entering the University who have completed advanced level courses in secondary schools and who have passed College Board Placement Examinations with scores of five, four or three, may enroll for those higher level courses for which the department concerned determines them to be qualified. Those who have ratings of five or four will be granted up to a maximum of 30 hours credit (without grades). Those who have ratings of three may be granted up to 30 hours credit (without grades) upon recommendation of the department concerned and with the approval of the dean of the appropriate college, but the total number of hours granted may not in any instance exceed 30. In all instances, advanced credit earned in this manner by entering freshmen will be counted toward or will fulfill any pertinent University or departmental graduation requirement.

Advanced Placement Program without Credit
Entering first semester freshmen who do not qualify for advanced placement with credit may establish their eligibility for admission to higher level courses on the basis of placement examinations prepared and administered by those departments desiring to participate. Transfer students may qualify to meet graduation requirements or requirements for a major field in courses listed in the catalog by examinations given by departments. All such examinations shall conform to University policy, shall be adequate to evaluate the competence and preparation of students in their respective areas, and shall afford a reliable basis for assigning students to advanced courses.

Proficiency and Advanced Placement Examinations—Credit by Examination
Proficiency examinations are offered in a number of courses normally taken during the first two years. The Department of Biology administers an examination in Biol 124-125, Human Anatomy and Physiology, each January and August to candidates presenting some evidence of similar training. Application and authorization forms must be obtained from the Department of Nursing. A copy of a transcript, indicating past course work equivalent to Biol 124-125, must accompany the form requesting credit-by-examination. This form should be submitted to the Department of Biology at least one week prior to the announced examination date. Four credits will be awarded for a grade of "C" or above. Students who fail to attain this level of proficiency may not repeat the examination.

Examinations in English, government, geography, mathematics, and foreign languages are usually announced by the appropriate departments. A satisfactory score on such an examination will afford a student credit for the
course in question. The foreign language placement test also serves as a proficiency examination.

On the basis of examinations administered to candidates presenting some evidence of qualification, regularly enrolled students may be granted up to 30 semester-hours of undergraduate credit for other courses in the George Mason University curriculum. (The only exceptions to this regulation are registered nurses enrolled in the Nursing B.S. program. See “Department of Nursing” for details.) Credit is recorded for grades of “C” or above, but does not affect the student’s grade point average. In addition:

1. A student may not earn credit by examination in a course in which he is enrolled beyond the time allotted for adding courses in that semester, or in a course which he has already audited or failed at George Mason University.

2. A student may not earn by examination part of the 30 hours which transfer students are required to complete at George Mason University to earn a degree.

These examinations conform to University policies, evaluate the competence of students, and afford a reliable basis for assigning students to more advanced courses. Credit by Examination forms are available in the office of the student’s academic dean.

College Level Examination Program (CLEP)

The University currently does not recognize credits earned by CLEP General Examinations. As part of the Credit by Examination process, certain departments may utilize CLEP Subject Examination scores for total or partial credit in certain courses. Consult the individual department. The University Counseling Center is a certified CLEP Administration Center. Students interested in CLEP should consult the Center regarding fees for this service.

Transfer Credit

A student transferring into the University may not assume that credit will be given for work at other institutions until he has an official signed statement from the office of the dean of the appropriate college. It is the responsibility of the student to see that the Office of the Registrar receives an official transcript of work taken elsewhere before the record can be credited.

In general, credits are accepted from institutions that are accredited by the appropriate regional association provided they carry a grade of “C” or better and are of the quality of courses offered at this University. Generally, no more than half of the total required semester hours in a student’s George Mason baccalaureate program may be transferred from one or more junior or community colleges. The University has developed a manual to facilitate the orderly transfer of credits for students enrolled in a unit of the Virginia Community Colleges System, and more particularly at Northern Virginia Community College. A maximum of six semester-hours may be transferred from correspondence courses sponsored by regionally accredited institutions. Military services courses represent special cases and generally no credit is given.

Credit Earned at Other Colleges

The credits of students transferring from other institutions will be tentatively evaluated upon admission. If the institutions are not accredited, the transcript information may be used for purposes of advanced placement, and transfer credit as such will be recommended after the performance of the student at George Mason has been established.

Credit to be Earned at Other Colleges

A student applies for admission to George Mason University to profit from the educational programs of the University and would not normally seek simultaneous credit enrollment at another collegiate institution. Therefore, a student must obtain written approval in advance from the dean of the appropriate George Mason college in order to take a course elsewhere (including the Northern Virginia Consortium) for credit towards a degree at George Mason. Specific catalog numbers and descriptions of courses to be taken elsewhere shall be submitted with the request for approval. The purpose of this regulation is to permit a student to enroll elsewhere in a desirable and suitable course which is unavailable at George Mason.

Study Abroad

The University encourages students to broaden and enrich their undergraduate education through approved programs of study abroad for a summer session, a semester, or a full academic year. Many programs exist for formal study within the arts and sciences at accredited foreign institutions. They offer students the advantages of foreign travel, diverse social and cultural experiences, and often the opportunity to live with a family native to the country selected.

Students desiring to study in Latin America are requested to contact Professors Frank MacD. Spindler of the Department of History, or Lydia D. Hazera, Chairman, Latin American Studies Committee. Those interested in study in other parts of the world should contact the chairman of the Department of Foreign Languages and Literatures. In either case, students will be assisted in selecting a program that corresponds to their educational needs and interests. The program selected must be approved by the department chairman supervising the student’s major field, and by the appropriate college dean or the dean’s designated representative.

Graduate Course Enrollment

An undergraduate may enroll in graduate courses only if he has exhausted all the upper-level undergraduate courses relevant to his educational objective and if he can demonstrate a level of maturity required for graduate level courses. In these circumstances an undergraduate may, with the written permission of the course instructor and the chairman of the department offering the course, register for graduate courses (those numbered 500 and above) and apply the credit earned toward his undergraduate degree. Undergraduate students electing this option must have completed all prerequisite hours and courses for the graduate course in which they wish to enroll.

A student may seek to take a graduate course for reserve graduate credit. Approval to register for reserve graduate credit (earned credit held in reserve to apply later toward a graduate degree) is normally given only to George Mason seniors who are within 15 hours of completion of undergraduate study. Approval for reserve graduate credit does not imply approval for admission into a graduate program at George Mason University or that credit so earned will be accepted at another graduate school. Interested students should consult the Graduate Catalog for details.
George Mason’s modern campus is growing rapidly. Having been a commuter school since its founding, the University is now undergoing a major transition. Nine newly-constructed three-story student apartments will provide on-campus housing for 498 students on the Main Campus. Care has been taken to maintain the natural beauty of the treed acreage surrounding the apartments, with paved walkways throughout the complex leading to the other campus buildings.
Repeating a Course

A student who has passed a course with a grade of "C" or better is not permitted to repeat the course. In cases where courses are repeated, the following conditions apply:

1. All hours attempted are to count in computation of the student's cumulative grade point average.
2. A transcript will show both the original and repeat grades and the respective grade points.
3. Only one grade with appropriate grade points may be presented on the degree application.

Registering in Courses

The Faculty Adviser

In consultation with a faculty adviser, each degree student should plan an academic program to meet the general degree requirements and the specific requirements within a major field. The role of the faculty adviser is to help a student in the planning of an academic program. It must be emphasized, however, that the responsibility for reading the catalog and knowing the requirements of a specific baccalaureate degree rests with the student.

Academic Load

Although the University appreciates the need of many students to assume employment in order to meet their living expenses, employment must not take priority over academic responsibilities. Accordingly, a student who is employed more than 20 hours a week is strongly urged not to attempt a full-time academic load. A student employed more than 40 hours a week should not attempt more than six semester-hours. A student who fails to observe these guidelines may expect no special consideration for academic problems arising from the pressures of employment. Although 12 semester-hours per semester represents a minimum full-time load, a student who wishes to graduate in a four-year period will need to carry an average of at least 15 semester-hours per semester. A load in excess of 17 hours must be approved by the student’s academic dean or his representative.

Although applicants for admission are asked (for planning purposes) to indicate their preference for full-time or part-time status and for day or evening classes, students may freely choose between evening and day sections of courses, and change their full- or part-time status.

Early Registration

Early registration is conducted near the end of each semester for those students currently enrolled who intend to return for the next semester. Moreover, newly admitted or readmitted students whose acceptance is accomplished soon enough are permitted to early register.

Registration

New and returning students are given written instructions for the registration procedure in the Schedule of Classes. Students are responsible for following and completing the process properly. Students should confirm the correctness of their enrollment in classes with their instructors and report any apparent error immediately to the Office of the Registrar. Enrollment in laboratory sections must be confirmed by attendance at the first meeting or by notification to the department the same day.

Each registering student must complete and sign an Information Card. Information requested on this card is
used to prepare the student's master record and for numerous statistical reports. The University does not discriminate with regard to race, color, religion, national origin, sex, or age; the information requested is for anonymous reports the University provides to federal authorities and to other agencies collecting data on affirmative action and equal opportunity for education or employment. The card carries the following statement which must be signed by the student: "I voluntarily enroll as a student of George Mason University with a serious desire to reap the benefits of its instruction and hereby agree to conform to its rules and regulations, in testimony whereof I subscribe my name." A student failing to complete the card is not a registered student.

Delayed Registration
A student failing to register during the time specified will not be allowed to enroll without an explanation satisfactory to the student's academic dean. If permission for late registration is granted, the student may be charged a delayed-registration fee of $5.00-$15.00.

Cancelling Registration
Students who are unable to attend a semester for which they have registered should cancel their registration by written notice to the Office of the Registrar. Early cancellations will allow the University to meet the needs of other students wishing to register.

Student Identity Card
As a part of the registration process, each student is issued an identity card. The card serves as the student's official University identification. It must be presented to borrow library materials, and may be required for admission to University events or when using University facilities after normal operating hours. This card is issued for the student's use, is not transferable, and must be validated each semester.

Change of Status and Address
Each student is required to notify the Office of the Registrar of any change of home address, telephone number, change of the name or address of parent or guardian, or change of legal name. When a student's legal name is changed, the Office of the Registrar reserves the right to require a certified copy of documents authorizing the change. Such documents will be kept in the student's permanent file.

Change of Courses
In order to drop and/or add a course, a student must first obtain the written approval of the department in which the dropped or added course is taken. Forms for this purpose may be obtained from the departmental secretaries. All of the required signatures must be obtained on or before the deadlines shown in the Calendar.

Add
The last day for adding courses is no later than seven calendar days after and including the first day of classes.

Drop
The last day to drop a course without incurring an "F" is nine weeks after and including the first day of classes. Subsequent to this time, a student who discontinues a course without permission of the dean of the college will receive a grade of "F" in the course.

Attendance
Students are expected to attend the class periods of the courses for which they register. Absence from several meetings of a course may limit a student's performance and thus result in a lower grade; however, absence from a course per se may not be considered reason for awarding a lower grade than the student's achievement in the course may warrant. Although attendance per se may not be reason for lowering a grade, students are not relieved of the obligation to fulfill the assignments of the course, including those which can only be fulfilled in class. In particular, a student who misses an exam without an excuse may have his grade lowered. Likewise, a student who fails to participate (by virtue of extensive absences) in a course in which participation is a factor in evaluation may have his grade lowered.

Final Examinations
With certain exceptions, final examinations are given at the conclusion of all undergraduate courses. In predominantly laboratory courses, an examination may be given in the last regularly scheduled laboratory period. Examinations administered during the scheduled final examination period should not exceed three hours. Except for take-home examinations, deviations in location or time of in-class final examinations from the final examination schedule must be approved by the department chairman and dean of the college in which the course is taught. If a professor is considering the assignment of a take-home examination, he should communicate this fact to his students at the beginning of the semester. Such examinations should be distributed at least by the beginning of the last week of classes so that students can coordinate them with their preparation for other examinations. In no case should the students be required to submit the examinations prior to the date of the regularly scheduled examination for that class. Final re-examinations are not permitted.

Absence from Final Examinations and Special Examinations
Absence from final examination will not be excused except for sickness on the day of the examination or for other cause approved by the student's academic dean. If such absence is unexcused or the examination not taken within ten days, the grade on the course is entered as "F." A student whose absence from an examination is excused may take a special examination within the 10-day period on a date to be arranged between student and instructor.

Honors
The Dean's List
A student in the University is placed on the Dean's List of Distinguished Students if he has passed at least 12 semester-hours of work in the preceding semester, without failure in any course, and with a grade average in all courses of at least 3.300.

Comprehensive Examinations
A student who has passed with distinction a voluntary departmental comprehensive examination may have the following notation placed in the remarks section of the transcript: "Voluntary comprehensive examination in (area) passed with distinction, (date)."
Academic Standing
The grade point average will be computed to establish academic standing after each academic period, including summer session.

Satisfactory Standing
A student with a cumulative grade point average of at least 2.000 for all work attempted is in satisfactory academic standing.

Probation
Probation is an official warning to the student of failure to make satisfactory progress towards a degree. A student will be placed on probation when he has a grade point deficiency of 13 points below satisfactory standing (2.000); the academic record of a student placed on probation is stamped “probation.”

Suspension
Suspension is enforced withdrawal from the University. No student will be suspended at the end of a semester in which his grade point average for the semester is 2.000 or higher. Suspension is imposed after a semester which shows at least one of the two following conditions to be true of a student’s record:
1. A cumulative grade point deficiency of 25 points below satisfactory standing (2.000).
2. Three semesters of consecutive probation; the three semesters of consecutive probation are extended to four if the student attempted fewer than 12 hours of work each semester.

No course credits earned by a student during the period of suspension from George Mason University will be accepted for the degree program.

Readmission after Suspension
1. A student suspended for the first time may not enroll for the subsequent academic period, whether fall semester, spring semester, or summer session (to include all summer academic terms).
2. A student who has been readmitted after suspension will be restricted in University activities as if he were on probation.
3. A student who has been reinstated after suspension and is subsequently suspended again will not be considered for readmission until after two calendar years have elapsed. After a third suspension a student may not be readmitted to the University.

Effect of Academic Standing on Student Activities
A student is ineligible to hold elective or appointive office in any organization or activity associated with the University if his cumulative grade point average is less than 2.000. Moreover, any student on probation is ineligible to participate in any athletic or other activity representing the University on either an intercollegiate or club level and/or to serve as a working staff member of any student organization. It is the responsibility of the individual student to notify his organization when he becomes ineligible. The student’s academic dean, however, has the authority to remove the restriction on activities, in whole or part.
Voluntary Withdrawal

A student wishing to withdraw during a semester must obtain an official withdrawal form from the Office of the Registrar. Upon submission of the completed form to the Registrar, the following notation will be entered on the student's permanent record: "Withdrawn on [date] in the _____ week of a _____-week semester." No grades or courses are recorded for a semester from which a student has officially withdrawn.

Re-enrollment after Voluntary Withdrawal

Upon application to the Office of Admissions, students who have a 2.00 GPA at the time of withdrawal and have not attended another institution in the interim, may be allowed to re-enroll in the University. Students who have under a 2.00 cumulative GPA at the time of their withdrawal (and who wish to re-enroll) must consult with their Academic Dean. This consultation with the Dean is designed to give aid and counsel to the student, and to establish conditions of re-enrollment in the University.

Continuous Registration

Students not in continuous registration, summer sessions excluded, should notify the Office of Undergraduate Admissions 60 days in advance of registration for re-enrollment.

The Major

Selection of a Major

In order to plan a sound academic program the student should select a major as soon as practical, and this selection should be made no later than four weeks before the end of the sophomore year. For the declaration of a major, the student should confer with his department chair and/or faculty adviser and file the necessary form.

Change of Major

A student who wishes to change his major should first see his present faculty adviser. He should consult the departmental section of the catalog to determine whether there are specific requirements for admission to the new major program. If he does not meet them, he may appeal to the department chairman for exception to the requirements. Forms for accomplishing this change are available in the Office of the Registrar.

Credit for More Than One Major Field

A student may graduate with a major in two or more programs leading to the same bachelor’s degree. A student who desires to graduate from the University with a Bachelor of Arts degree or a Bachelor of Science degree in two or more subjects having established degree programs must meet departmental requirements for admission to the major in each field.

The applicant should present to the chairmen of the departments involved a program showing in detail the curriculum he or she will pursue to graduation. This program must be approved by the department chairmen involved and by the dean(s) of the appropriate college(s). The department chairmen and dean(s) must also approve all changes made thereafter.

In order to graduate with more than one major, a student must complete all departmental requirements for each major program. The student may begin the program at any time that permits its completion prior to the date of the student's contemplated graduation.

Second Bachelor’s Degree

A second bachelor’s degree may be earned, either concurrently or sequentially, by completing all requirements for that degree and by presenting on the degree application an additional 30 semester-hours of credit earned at George Mason University not presented toward the first degree.

Graduation

Catalog Requirements for Graduation

A candidate for a degree may elect to graduate under the provisions of the catalog under which he was admitted or may elect to graduate under the provisions of a catalog subsequent to admission if the student has been enrolled in a continuous progression from date of entry to the receipt of a degree. (Summer sessions and one semester absences are included.) Any student who fails to register for two or more consecutive semesters must meet either the requirements of the catalog under which he entered or the requirements in effect at the time the student shall be graduated.

Residence Requirements

At least one-fourth of the total semester-hours presented on the degree application must be completed at George Mason University; these shall include at least 12 semester-hours of advanced level courses in the major program.

It is expected that the student’s final one-fourth of college study will be completed at George Mason University. However, a student of junior standing who has completed 24 semester-hours of advanced level courses, including twelve upper level semester-hours in his major, may apply to the dean of the appropriate college for permission to complete his remaining degree requirements elsewhere. Such applications must follow the procedures outlined in the section “Credit to be Earned at Other Colleges” and permission will only be granted in special circumstances, such as the student’s moving from the area or enrolling in an accredited professional school.

A student who gains early admission to an accredited professional school may be granted a bachelor’s degree if certain conditions are met. In this context a professional school is defined as a school of medicine, osteopathy, veterinary medicine, optometry, dentistry, or law. Before leaving George Mason University, the student must obtain a letter of certification signed by the department chairman and the dean of the appropriate college, that he has met the residence requirement and all general education and major requirements for the degree. He must also secure prior approval from the dean of the appropriate college of those professional school courses which are to be applied as elective credits only to the total semester-hour requirement for the bachelor’s degree.

Academic Achievement

To qualify for a baccalaureate degree, a student must have been admitted, and must have fulfilled all stated requirements for the specific degree. In addition, the student must have maintained a 2.000 (C) average in his major, an average grade of 2.000 (C) on all courses presented for the degree, and a cumulative grade point average.
of 2.000 (C) on all work attempted at George Mason University.

A Graduation Appeals Committee in each college considers appeals in writing from students who may be two quality grade points and/or one semester-hour short of meeting degree requirements and considers written appeals from students who have failed to meet certain area requirements.

Application for Degree

Students who expect to complete graduation degree requirements must secure an Application for Degree form from the Registrar’s office, complete, and return it to the Office of the Registrar by the date designated on the Academic Calendar. A graduation fee is payable at the time the student submits the Application for Degree; fee payment is required each time a new application for graduation is submitted.

Any person who is undertaking any form of academic study with the University including supervised research must be registered as a student and pay the prescribed charges.

Any student not in attendance at the University who is preparing a dissertation under the active supervision of a member of the faculty, or who wishes to return to receive a degree or take an examination, pays a $15.00 registration fee for that semester and is exempt from all other fees.

Graduation with Distinction

The University will recognize as graduating with distinction a student who has a grade point average of 3.300, with high distinction a student who has a grade point average of 3.600, and with highest distinction a student who has a grade point average of 3.800. Such recognition shall be limited to students who have earned 60 hours or more at George Mason University. (This distinction shall appear on the graduation program and on the student’s transcript.) These grade point averages became effective with the January 1977 graduation.

Commencement

Commencement exercises provide an opportunity for students and their families to share in the experience of the conferral of academic degrees. This ceremony represents the culmination of a phase in the formal education of the individual. Degree candidates who do not desire to participate in the formal graduation ceremonies must notify the Office of the Registrar at least 24 hours prior to the date and time of the ceremony.

Course Notes

A schedule of classes will be available before registration for each semester. The number and variety of courses will be increased as needed. No course listed in the schedule of classes will be offered for which there is insufficient enrollment. The University reserves the right to change the class schedule and to adjust individual section enrollments as necessary.

1. Course numbers in the 100 series are customarily taken by freshmen, the 200 series by sophomores, the 300 series by juniors, and the 400 series by seniors.

2. The number designations of the course descriptions below have the following significance:
   a. A single number (as Hist 301) indicates that the course is complete within a single semester, and that the semester course may be taken separately with credit toward a degree.
   b. A double number separated by a hyphen (as Biol 124-125) indicates that the course extends through two semesters, that both semesters must be completed before the course may count toward a degree, and that the first semester is prerequisite to the second semester. A student may not take the second semester of a hyphenated course unless he has received either transfer credit for the equivalent of the first semester or advanced placement from the department concerned.
   c. A double number separated by a comma indicates that the course extends through two semesters but that either semester may be taken by itself. Unless otherwise specified, the first semester is not prerequisite to the second semester.

3. The credit in semester-hours is shown in parenthesis in each course description (3).

4. The sample schedules listed under each department are illustrative schedules only. Courses need not be taken in the precise sequences or semesters indicated, except as prerequisites or other necessities prescribe.
College of Arts and Sciences
College of Arts and Sciences

Bachelor of Arts Degree Requirements

The general education portion of the Bachelor of Arts degree offers insights into a broad range of human thought and activity. Such insights enable persons to fill more effectively various roles in our society and provide a foundation for continued learning and personal development.

Through general education, students gain knowledge of the basic disciplines, skill in relating materials within a discipline and between disciplines, and some understanding of human civilization as a whole. All courses fulfilling general education requirements should combine such knowledge, skill, and understanding. Thus in a course in any discipline, students should gain basic knowledge of that discipline, skill in the methods which produced that knowledge, and understanding of that discipline’s common attitudes and of its place within human thought and activity.

The courses are grouped below to allow the student to exercise certain options among disciplines utilizing similar modes of thought:

<table>
<thead>
<tr>
<th>Semester Hours</th>
<th>Communication</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A. Written</td>
</tr>
<tr>
<td></td>
<td>Engl 101, 102. Non-native speakers of English with limited proficiency in the language may substitute Engl 100 for Engl 101. A student must attain a minimum grade of “C” in order to have Engl 101, 102 fulfill degree requirements. This rule also applies to Engl 100.</td>
</tr>
<tr>
<td></td>
<td>B. Oral</td>
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<tr>
<td></td>
<td>Spch 100, 110, 120, or 130</td>
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<tr>
<td></td>
<td>C. Foreign Language</td>
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<td></td>
<td>The student must demonstrate proficiency in one foreign language through the intermediate level, either by examination or by completion of course work.</td>
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<tr>
<th>Semester Hours</th>
<th>Analytical Reasoning</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Logic (Phil 173 or 273) or mathematics</td>
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<table>
<thead>
<tr>
<th>Semester Hours</th>
<th>Humanities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A. Literature</td>
</tr>
<tr>
<td></td>
<td>Any course in literature at the 200 level or above in English or 300 level or above in Foreign Languages and Literatures.</td>
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<tr>
<td></td>
<td>B. Fine Arts</td>
</tr>
<tr>
<td></td>
<td>Art, dance, dramatic arts, film, or music (lecture or studio)</td>
</tr>
<tr>
<td></td>
<td>C. Philosophy or Religion</td>
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<tr>
<td></td>
<td>A logic course does not satisfy this requirement.</td>
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<table>
<thead>
<tr>
<th>Semester Hours</th>
<th>Social Science</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A. Economics, geography, government, history</td>
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<tr>
<td></td>
<td>B. Anthropology, psychology, sociology</td>
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<table>
<thead>
<tr>
<th>Semester Hours</th>
<th>Natural Science</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>A two-semester laboratory-science sequence in biology, chemistry, geology, or physics.</td>
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</table>

<table>
<thead>
<tr>
<th>Semester Hours</th>
<th>Non-Western Culture</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Six credits must be earned in courses devoted to non-Western culture. This require-</td>
</tr>
</tbody>
</table>

ment is waived for a student who has attended for more than four years in indigenous school in an non-Western country. The following courses which are designated as meeting this requirement may also be presented in partial fulfillment of requirements stated in sections I, III, and IV:

A. Anth 114: Introduction to Cultural Anthropology
   Anth 232: Cultures in Comparative Perspective

B. Art 320: History of Ancient Near Eastern Art

C. Engl 393: Selections from the Literatures of the Indian Continent
   Engl 394: Japanese Literature in Translation
   Engl 395: Chinese Literature in Translation

D. Russ 151-152: Elementary Russian
   Russ 251: Intermediate Russian
   Russ 252: Russian Conversation and Composition
   Russ 253: Russian Civilization
   Russ 254: Readings in Russian Literature

E. Hist 241, 242: A Survey of East Asian Civilization
   Hist 261, 262: Survey of African Civilization
   Hist 271: Latin-American History: The Colonial Era
   Hist 281, 282: Survey of Middle Eastern Civilization
   Hist 328: Rise of Russia
   Hist 329: Modern Russia and The Soviet Union
   Hist 463: The Early History of the Indo-Pakistan Subcontinent
   Hist 464: Modern India and Pakistan
   Hist 471: Modern China
   Hist 473: Modern Japan

F. Musi 203: Folk and Traditional Music of the World
   Musi 231: Survey of World Music Literature
   Musi 335: Historical, Theoretical, and Analytical Study of Music I

G. Reli 211: Religions of the Near East
   Reli 212: Religions of the Orient
   Reli 213: Hindu Religion and Philosophy
   Reli 334: Religion in the Theatre of Asia
   Reli 336: Religion and Art of Asia

VII. Major ......................................................... 30-42

See appropriate departmental sections of the Catalog for required credits. At least 12 hours of work in the major field at the 300 and 400 level must be completed at George Mason University.

VIII. Total Minimum Semester-Hours .......................... 120
Bachelor of Science Degree Requirements

I. Fulfillment of the requirements for the major as listed under the respective departments: biology, chemistry, economics, mathematics, physics, psychology, public administration, and sociology. A Bachelor of Science degree is also offered in law enforcement.

II. At least 12 semester hours of course work outside the area of specialization as follows:
   A. 12 hours outside the fields of economics, geography, government or history if the degree is in one of these fields.
   B. 12 hours outside the natural sciences or mathematics fields if the degree is in those fields.
   C. 12 hours outside the fields of anthropology, psychology, or sociology if the degree is in one of these fields.

III. At least 12 semester-hours of English and literature.
   A. English Composition (6)
      Engl 101, 102. Non-native speakers of English with limited proficiency in the language may substitute Engl 100 for 101. A student must attain a minimum grade of "C" in order to have Engl 101, 102 fulfill degree requirements. This rule also applies to Engl 100.
   B. Literature (6)
      This requirement is met by taking two courses in literature at the 200 level or above in English or at the 300 level or above in Foreign Languages and Literatures.

IV. Total minimum semester hours, 120.

Bachelor of Music Degree Requirements

1. General Education 32
2. Basic Musicianship 58
3. Music Electives 18
4. Free Electives 22
5. Total minimum semester-hours 130
   (For details, see the music section under Department of Fine and Performing Arts, page 68.)

Certification for Secondary School Teaching

Students who wish to become secondary school teachers should consult with the secondary education adviser in their department. A bachelor's degree requires a minimum of 120 semester-hours. A bachelor's degree designed for teacher preparation includes both the arts and sciences component and all essential elements of the Teacher Education Program. This minimum is 131 semester-hours.

Programs

American Studies
Engineering
European Studies
Latin American Studies
Law Enforcement

Undergraduate Catalog 1977-1978
George Mason University

http://catalog.gmu.edu
2. A minimum of nine semester-hours in English selected from the following courses:
   Engl 330: American Folklore (3)
   Engl 331: Literary Approaches to Popular Culture (3)
   Engl 380: Recent American Fiction (3)
   Engl 381: Colonial and Federalist American Literature (3)
   Engl 382: American Renaissance (3)
   Engl 383: American Jewish Writers (3)
   Engl 384: Literature of the Modern South: 1920 to the Present (3)
   Engl 385: American Poetry of the Twentieth Century (3)
   Engl 386: Literature of Black America (3)
   Engl 387: Development of the American Novel to 1914 (3)
   Engl 388: Development of the American Novel since 1914 (3)
   Engl 389: Plays of Twentieth Century American Dramatists (3)
   Engl 390: Recent American Poetry (3)
   Engl 441: Studies in English and American Literary Topics, Periods or Genres (3)
   Engl 442, 444, 446: Selected Studies and Writers (In semesters when selections deal with American Literature (3, 3, 3)

3. A minimum of six semester-hours in history selected from the following courses:
   Hist 333: Westward Movement in the United States (3)
   Hist 335: The Afro-American Experience in the United States or 336, continuation of The Afro-American Experience in the United States (3)
   Hist 341, 342: U.S. Constitutional History (3, 3)
   Hist 343, 344: Diplomatic History of the United States (3, 3)
   Hist 351: History of the Old South or 352, South Since 1865 (3)
   Hist 390: Topics in History (In semesters when topics deal with American History) (3)
   Hist 391: History of Virginia or 392, continuation of History of Virginia (3)
   Hist 401: Colonial America (3)
   Hist 403: The Early National Period in U.S. History, 1783-1820 (3)
   Hist 406: Civil War and Reconstruction (3)
   Hist 409: The United States between the Wars: 1919-1941 (3)
   Hist 410: The United States since World War II: Nation and Empire (3)
   Hist 411, 412: Cultural and Intellectual History of the United States (3, 3)
   Hist 413: War and the Military in American Life or 414, continuation of War and the Military in American Life (3)
   Hist 415: United States Urban History or 416, continuation of United States Urban History (3)
   Hist 495: Race and Ethnicity in the United States (2) Open only to American Studies and History majors.

4. A minimum of 18 semester-hours from courses directly related to the American Studies program:
   a. A minimum of nine semester-hours must be selected from the courses listed below:
      AmSt 201, 202: Studies in Popular Culture (3, 3)
      AmSt 403: Independent Study (1-3)
      Anth 341: Issues in Anthropology: Native North Americans (3)
      Art 320: American Art (3)
      Dram 253: Black Theater in the United States (3)
      Dram 352: Survey of the History of the Theater [in America] (3)
      Econ 150: The Urban Economy (3)
      Econ 320: Labor Problems (3)
      Econ 365: Development of the American Economy (3)
      Geog 215: Geography of the United States and Canada (3)
      Geog 301: Political Geography (3)
      Geog 302: Suburban Geography (3)
      Geog 304: Geography of Population (3)
      Govt 204: American State and Local Government (3)
      Govt 241: Introduction to Public Administration (3)
      Govt 310: Political Dynamics (3)
**American Studies Seminars**

**201, 202 Studies in Popular Culture (3, 3)**
Aspects of popular culture and its significance in contemporary society. Topics may include the social and intellectual background of American culture, themes and techniques of major forms of communications, and the conventions of such media as television, film, comics, advertising and westerns. The specific content of the courses will vary from semester to semester. These courses may be repeated for credit with the permission of the Chairman, American Studies Committee. Students who elect to major in American Studies may apply up to six hours of AmSt 201, 202 in satisfying the requirements for relevant courses.

**302 Introduction to American Studies (3)**
Prerequisite: Junior or senior standing and permission of the Chairman, American Studies Committee. Seminars are limited to 15 students with preference given to American Studies majors. Introduction to interdisciplinary methods through intensive study of a period in the American past, integrating history, literature, music, art, architecture, philosophy, social sciences, technology, and popular and minority cultures of the period. Subject will be determined by the instructor conducting the seminar and may be obtained from him in advance.

**401 Themes in American Civilization (3)**
Prerequisite: Junior or senior standing and permission of the Chairman, American Studies Committee. Seminars are limited to 15 students with preference given to American Studies majors. Intensive study of a significant theme, motif, or idea in American culture. Subject will be determined by the instructor conducting the seminar and may be obtained from him in advance.

**402 Readings in American Studies (3)**
Prerequisite: Junior or senior standing and permission of the Chairman, American Studies Committee. Seminars are limited to 15 students with preference given to American Studies majors. Application of American Studies methods to materials drawn from two or more of the participating disciplines, or not examined in traditional disciplines. Subject will be determined by the instructor conducting the seminar and may be obtained from him in advance.

**403 American Studies Independent Study (1-3)**
Prerequisite: Junior or senior standing and permission of the Chairman, American Studies Committee, and the instructor. Intensive study of a period, problem or project related to American culture proposed by an individual student to be conducted in close consultation with an instructor from one of the departments participating in the American Studies Program. The student will produce at least one substantial piece of written work during the semester, together with other items if appropriate; i.e., tapes, artifacts, etc. Each student will enroll for 1 to 3 hours credit. By permission of the Chairman, American Studies Committee, the course may be taken a second time for a total of six hours credit.

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### Sample Schedule for a Double Major in American Studies and English

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Fifth Semester</th>
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<tbody>
<tr>
<td>Engl 101</td>
<td>Art 320</td>
</tr>
<tr>
<td>Foreign language</td>
<td>Engl 381</td>
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<td>Hist 121</td>
<td>Phil 331</td>
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<td>Soci 101</td>
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<td>Natural science</td>
<td>Engl 391</td>
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### Sample Schedule for a Double Major in American Studies and History

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<tbody>
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<tr>
<td>Hist 121</td>
<td>Engl 300</td>
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<td>AmSt 302</td>
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<tr>
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<tr>
<td>Soci 101</td>
<td>Hist 333</td>
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<tr>
<td>Govt 204</td>
<td>Hist 351</td>
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<td>AmSt 201</td>
<td>Musi 206</td>
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<tr>
<td>Engl 206</td>
<td>AmSt 402</td>
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<tr>
<td>Natural science</td>
<td>Hist 412</td>
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<tr>
<td>Reli 231</td>
<td>Hist 499</td>
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<tr>
<td>AmSt 202</td>
<td>Elective</td>
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</table>
George Mason University offers a two-year engineering program designed to meet most of the basic requirements of the first two years of the standard engineering curriculum. A student completing this course of study may expect to complete a Bachelor of Science degree in any of the specialized areas offered at other schools of engineering.

All entering freshmen in engineering are required to take a proficiency examination in elementary algebra and trigonometry. The test will be given before the beginning of the summer, fall and spring semesters. The exact dates may be found in the Academic Calendar. Any student who fails the examination will be required to take Math 101 or to retake and pass the examination prior to registration in Phys 113.

**Engineering Courses (two years only)**

104 Introduction to Engineering (3)
*Corequisite: Math 113 or permission of instructor.* Introduction to the technological problems encountered in the profession of engineering and the role of the engineer in society. Approaches and methods used in problem solving, including computer techniques. Three hours lecture.

191 Engineering Graphics (4)
Fundamentals of engineering drawing, descriptive geometry, graphical analysis and design. Specific topics include geometrical construction, multiview drawing, pictorial drawing, sectioning, dimensioning and assembly drawing. Two hours lecture, four hours laboratory.

205 Engineering Mechanics: Statics (3)
*Prerequisite: Math 114, Phys 113.* Resolution and composition of forces by analytical methods. Analysis of forces in structures and machine members. Centroids, equilibrium, friction, moments of inertia. Three hours lecture.

206 Dynamics (3)

207 Thermodynamics (3) *(Same as Physics 207)*
*Prerequisite: Math 114 and Phys 114.* Classical concepts of energy and temperature, basic definitions, first and second laws and their application to engineering systems, properties of pure substances, equation of state, analysis of thermodynamic processes. Three hours lecture.

208 Mechanics of Materials (3)
*Prerequisite: Engr 205 and Phys 114 or permission of instructor.* Concept of stress, strain, elasticity and plasticity, combined stress, torsion, stresses and deflection of beams, statically indeterminate members, unsymmetrical bending, buckling of columns. Three hours lecture.

285 Electric Circuits (3)

302 Electronics (4) *(Same as Physics 302)*
*Prerequisite: Phys 213, 215 or permission of instructor.* A lecture and laboratory course in electronics, design and operational characteristics of power supplies, amplifiers, oscillators, servomechanisms, switching, timing and digital counting circuits. Six laboratory hours, two hours lecture.

*Inquiries concerning this program should be directed to Dr. W. M. Black, Department of Physics, George Mason University, Fairfax, Virginia 22030.*

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**Sample Schedule for the Engineering Program**

<table>
<thead>
<tr>
<th>First Semester</th>
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<tbody>
<tr>
<td>Phys 113</td>
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<td>Math 113</td>
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<td>Chem 111</td>
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<td>Engl 101</td>
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<td>Engr 191</td>
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<td>Engr 104</td>
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42
European Studies

European Studies Committee
Esther N. Elstun, Committee Chairman, (Department of Foreign Languages and Literatures)
Peter Brunette (Department of English)
Amanda M. Burt (Department of Fine and Performing Arts)
Ronald J. Jensen (Department of History)
Paul J. Mika (Department of Public Affairs)

Requirements for the Major
This interdisciplinary program leads to the Bachelor of Arts degree with a major in European Studies. The student must present a minimum of 120 semester-hours of coursework for graduation, including satisfaction of general requirements for the Bachelor of Arts degree and completion of 45 semester-hours of course work in the European Studies Program as follows:

1. Twelve semester-hours in interdisciplinary seminars:
   - EuSt 300: Foundations of European Civilization (3)
   - EuSt 350: Classicism and Romanticism (3)
   - EuSt 400: The Fusion of the Arts (3)
   - EuSt 450: Contemporary European Problems and Values (3)

2. Three semester-hours of European geography:
   - Geog 220: Geography of Europe

3. Thirty semester-hours in an area of concentration consisting of two related disciplines, selected from the following list. At least nine of the hours in each discipline must be earned at the 300-level or above.
   a. language (English, French, German or Spanish) and the fine arts
   b. language and history
   c. language and government
   d. language and philosophy
   e. history and the fine arts
   f. history and philosophy
   g. history and government
   h. government and philosophy

European Studies Courses

300 Foundations of European Civilization (3)
Prerequisite: Junior or senior standing and permission of instructors.
An examination of the Greek, Roman, and Judeo-Christian origins of Europe's intellectual and cultural traditions, concentrating upon those models of political, social and artistic behavior that deeply influenced European life and thought.

350 Classicism and Romanticism (3)
Prerequisite: EuSt 300 or consent of the instructors. An examination of the political, philosophical, and aesthetic ideas of seventeenth, eighteenth, and nineteenth century Europe. Study of the concepts included under the rubrics of classicism and romanticism will give perspectives on the two basic ways in which modern man views himself and his world.

400 The Fusion of the Arts (3)
Prerequisite: EuSt 300 or consent of the instructors. An examination of contemporary art in the light of the past, and of the aesthetic theories by which the arts are analyzed and evaluated. Study of manifestations of aesthetics through form and structure and in the music and art of the past, as well as in the present age of technology.

450 Contemporary European Problems and Values (3)
Prerequisite: EuSt 300 or consent of the instructors. An examination of the main currents of European life and thought in the twentieth century. Study of the principal influences and events of the period, culminating in an assessment of contemporary European problems and values.
**Sample Schedule for a Major in European Studies**  
*(Concentration: German and Philosophy)*

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Fifth Semester</th>
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<tbody>
<tr>
<td>Engl 101</td>
<td>Germ 301</td>
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<tr>
<td>Hist 101</td>
<td>Math 106</td>
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<tr>
<td>Biol 103</td>
<td>Oral Communication</td>
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<tr>
<td>Germ 151</td>
<td>EuSt 300</td>
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<tr>
<td>Engl 102</td>
<td>Phil 372</td>
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<tr>
<td>Hist 102</td>
<td>Germ 302</td>
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<tr>
<td>Biol 104</td>
<td>Hist 308</td>
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<tr>
<td>Germ 152</td>
<td>EuSt 350</td>
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<tr>
<td>Psyc 100</td>
<td>Oral Communication</td>
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<td>Phil 231</td>
<td>Germ 411</td>
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<td>Germ 251</td>
<td>Hist 309</td>
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<tr>
<td>Art 221</td>
<td>Musi 203</td>
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<tr>
<td>Musi 101</td>
<td>EuSt 400</td>
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<tbody>
<tr>
<td>Phil 232</td>
<td>Germ 412</td>
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<tr>
<td>Germ 254</td>
<td>Phil 421, 422, 423, or 424</td>
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<td>Germ 325</td>
<td>EuSt 450</td>
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<tr>
<td>Art 222</td>
<td>Electives</td>
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<td>Geog 220</td>
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**Sample Schedule for a Major in European Studies**  
*(Concentration: English and History)*

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<tbody>
<tr>
<td>Engl 101</td>
<td>EuSt 300</td>
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<tr>
<td>Chem 103</td>
<td>Non-Western Studies</td>
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<tr>
<td>Fren 151</td>
<td>Oral Communication</td>
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<tr>
<td>Hist 101</td>
<td>Hist 305</td>
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<td>Art 221</td>
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<td>Engl 102</td>
<td>EuSt 350</td>
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<tr>
<td>Chem 104</td>
<td>Non-Western Studies</td>
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<tr>
<td>Fren 152</td>
<td>Phil 232</td>
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<tr>
<td>Hist 102</td>
<td>Hist 308</td>
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<tr>
<td>Art 222</td>
<td>Engl 320</td>
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<th>Third Semester</th>
<th>Seventh Semester</th>
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<tr>
<td>Engl 203</td>
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<td>Oral Communication</td>
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<tr>
<td>Engl 204</td>
<td>Engl 450</td>
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<tr>
<td>Soci 101</td>
<td>Engl 374</td>
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<td>Math 106</td>
<td>Engl 451</td>
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<td>Govt 132</td>
<td>Hist 314</td>
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<td>Hist 306</td>
<td>Hist 441 or 443</td>
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**European Studies Oriented Courses**

In addition, the following departmental courses support the European Studies program:

**Department of Economics**
- Econ 380: Comparative Economic Systems (3)
- Econ 390: International Economics (3)
- Econ 481: Development of Economic Thought (3)

**Department of English**
- Engl 203, 204: Western Literary Masterworks (3, 3)
- Engl 251, 252: Survey of English Literature (3, 3)
- Engl 313: Critical Approaches to Literature (3)
- Engl 320: Myth and Symbol in Western Literature (3)
- Engl 341: Chaucer (3)
- Engl 342: Literature of the Middle Ages (3)
- Engl 345: English Poetry and Prose of the Sixteenth Century (3)
- Engl 346: Spenser (3)
- Engl 351, 352: Shakespeare (3)
- Engl 353: English Renaissance Drama (3)
- Engl 354: English Poetry and Prose of the Seventeenth Century (3)
- Engl 355: Milton (3)
- Engl 356: Restoration and Eighteenth-Century Drama (3)
- Engl 357: The Augustan Age (3)
- Engl 358: The Age of Johnson (3)
- Engl 361: English Poetry of the Romantic Period (3)
- Engl 362: English Poetry of the Victorian Period (3)
- Engl 365: Twentieth-Century English Poetry and Prose (3)
- Engl 370: English Novel of the Eighteenth Century (3)
- Engl 371: English Novel of the Nineteenth Century (3)
- Engl 372: English Novel of the Twentieth Century (3)
- Engl 373: Literary Modes (3)
- Engl 374: English and Irish Drama of the Twentieth Century (3)
- Engl 375, 376: Contemporary Drama (3, 3)
- Engl 377, 378: Selected Continental Novels in Translation (3, 3)
- Engl 392: History of the English Language (3)
- Engl 431: Medieval Intellectual Topics (3)
- Engl 451: Introduction to Literary Criticism (3)

**Department of Fine and Performing Arts**
- Art 221, 222: Survey of Western Art (3, 3)
- Art 223, 224: Comparative Arts (3, 3)
- Art 321: 322: History of Classical Art (3, 3)
- Art 325, 326: Medieval and Early Renaissance Art (3, 3)
- Art 327: History of Renaissance Art (3)
- Art 328: History of Baroque Art (3)
- Art 331, 332: History of Nineteenth and Twentieth-Century Art (3, 3)
- Danc 101: Dance Appreciation (3)
- Dram 160: Introduction to the Theatre Experience (3)
- Dram 351, 352: Survey of the History of Theatre (3, 3)
- Musi 101, 102: Music Appreciation (3, 3)
- Musi 204: Introduction to Twentieth-Century Music (3)
- Musi 336: Historical, Theoretical, and Analytical Study of Music II (3)
- Musi 435: Historical, Theoretical, and Analytical Study of Music III (3)
- Musi 436: Historical, Theoretical, and Analytical Study of Music IV (3)
- Musi 437: Choral Literature (3)
- Musi 438: Operatic Literature (3)
- Musi 439: Piano Literature (3)
- Musi 440: Orchestral Literature (3)
- Musi 445: Bibliography and Research Techniques (3)
- Musi 496: Ethnomusicological Area Studies: Iceland (3)

**Department of Foreign Languages and Literatures**
- Fren 151, 152: Elementary French (4, 4)
- Fren 153: Review of Elementary French (4)
- Fren 251: Intermediate French (4)
- Fren 252: French Conversation (3)
- Fren 255: French Literary Masterpieces (3)
- Fren 325: Major French Writers (in English translation) (3)
- Fren 329: Problems of Western Civilization in French Literature (offered in English) (3)
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>Hist 329</td>
<td>Modern Russia and the Soviet Union (3)</td>
</tr>
<tr>
<td>Hist 421</td>
<td>Intellectual and Cultural History of Europe, 1715-1848 (3)</td>
</tr>
<tr>
<td>Hist 422</td>
<td>Intellectual and Cultural History of Europe, 1848 to the Present (3)</td>
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<td>Hist 431</td>
<td>Medieval Intellectual Topics (3)</td>
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<tr>
<td>Hist 440</td>
<td>France 1610-1789: From Absolutism to Revolution (3)</td>
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<td>Hist 441</td>
<td>France since the Revolution (3)</td>
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<td>Hist 443</td>
<td>History of Spain and Portugal (3)</td>
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<td>Hist 480</td>
<td>Alexander and the Hellenistic World (3)</td>
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**Department of Philosophy and Religion**

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<td>Phil 231, 232</td>
<td>History of Western Philosophy (3, 3)</td>
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<td>Phil 313</td>
<td>Philosophy of Religion (3)</td>
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<td>Phil 315</td>
<td>Philosophy of History (3)</td>
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<td>Phil 332</td>
<td>Twentieth-Century Analytic Philosophy (3)</td>
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<td>Phil 333</td>
<td>Contemporary Continental Thought: Existentialism and Phenomenology (3)</td>
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<td>Phil 351, 352</td>
<td>Ethics and Contemporary Political Thought, I, II (3, 3)</td>
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<td>Phil 356</td>
<td>Philosophy of Art (3)</td>
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<td>Phil 375</td>
<td>Metaphysics (3)</td>
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<td>Phil 421, 422, 423, 424</td>
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**Department of Public Affairs**

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<td>Geography of Europe (3)</td>
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<td>Geog 230</td>
<td>Geography of the Soviet Union (3)</td>
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<tr>
<td>Govt 132</td>
<td>Introduction to International Politics (3)</td>
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<td>Govt 330</td>
<td>Political Values (5)</td>
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<td>Govt 350</td>
<td>Advanced International Relations (5)</td>
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<td>Govt 450</td>
<td>Cross-National Political Study (5)</td>
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<tr>
<td>Govt 460</td>
<td>Foreign Policies and Analysis (5)</td>
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**Department of History**

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<tr>
<td>Hist 101, 102</td>
<td>Western Civilization (3, 3)</td>
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<tr>
<td>Hist 301</td>
<td>Classical Greece and Rome (3)</td>
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<td>Hist 302</td>
<td>Imperial Rome and Byzantium (3)</td>
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<td>Hist 303</td>
<td>Western Europe in the Middle Ages (3)</td>
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<td>Hist 305</td>
<td>The Renaissance (3)</td>
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<td>The Reformation (3)</td>
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<td>Hist 308</td>
<td>Nineteenth-Century Europe (3)</td>
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<td>Hist 309</td>
<td>Contemporary Europe (3)</td>
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<tr>
<td>Hist 314</td>
<td>History of Germany (3)</td>
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<tr>
<td>Hist 322</td>
<td>England through the Revolution of 1688 (3)</td>
</tr>
<tr>
<td>Hist 324</td>
<td>England from the Revolution of 1688 (3)</td>
</tr>
<tr>
<td>Hist 325</td>
<td>Tudor and Stuart England (3)</td>
</tr>
<tr>
<td>Hist 328</td>
<td>Rise of Russia (3)</td>
</tr>
</tbody>
</table>
Requirements for the Major

This interdisciplinary program culminates in the conferral of the degree of Bachelor of Arts with a major in Latin American studies and requires a minimum of 120 semester-hours of course work. All participants must satisfy the general requirements for the Bachelor of Arts degree at George Mason University. In addition, they must present 36 semester-hours of course work divided to include (a) 18 semester-hours upper division courses (300-400 level) in a core discipline* and (b) 18 semester-hours of Latin American-oriented courses other than the core discipline, including the interdisciplinary seminar on contemporary Latin America (LAS 491). A list of courses meeting requirement (b) above is provided below. Proficiency in Spanish or Portuguese must be demonstrated either by examination or by completion of the requisite 251 foreign language courses. Students are encouraged to take an additional six hours of language study selected from the following courses: Span 252, 253, 255, 256, 257, or 259.

*Any discipline in which a major is possible.

Sample Schedule for Latin American Studies Major

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Fifth Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engl 101</td>
<td>Core discipline (300)</td>
</tr>
<tr>
<td>Art, music, philosophy or religion</td>
<td>Core discipline (300)</td>
</tr>
<tr>
<td>Port or Span 151</td>
<td>Latin American oriented</td>
</tr>
<tr>
<td>Anthropology, psychology or sociology</td>
<td>Mathematics or logic</td>
</tr>
<tr>
<td>Hist 121: United States</td>
<td>Oral Communication</td>
</tr>
<tr>
<td></td>
<td>16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Sixth Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engl 102</td>
<td>Core discipline (300)</td>
</tr>
<tr>
<td>Art, music, philosophy or religion</td>
<td>Core discipline (300)</td>
</tr>
<tr>
<td>Port or Span 152</td>
<td>Latin American oriented</td>
</tr>
<tr>
<td>Anthropology, psychology or sociology</td>
<td>Non-Western choice</td>
</tr>
<tr>
<td>Hist 122: United States</td>
<td>Elective</td>
</tr>
<tr>
<td></td>
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</tr>
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</table>

<table>
<thead>
<tr>
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<th>Seventh Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engl 203</td>
<td>Core discipline (400)</td>
</tr>
<tr>
<td>Port or Span 251</td>
<td>Latin American oriented</td>
</tr>
<tr>
<td>Natural Science</td>
<td>Electives</td>
</tr>
<tr>
<td>Core discipline prerequisite</td>
<td>7</td>
</tr>
<tr>
<td>Hist 271: Latin American History</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>17</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fourth Semester</th>
<th>Eighth Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engl 204</td>
<td>Core discipline (400)</td>
</tr>
<tr>
<td>Portuguese or Spanish</td>
<td>LAS 491: Contemporary</td>
</tr>
<tr>
<td>Natural Science</td>
<td>Latin America</td>
</tr>
<tr>
<td>Core discipline prerequisite</td>
<td>Electives</td>
</tr>
<tr>
<td>Hist 272: Latin American History</td>
<td>6</td>
</tr>
<tr>
<td></td>
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</tr>
</tbody>
</table>
Latin American Studies Course

491 Contemporary Latin America (3)
Required of senior majors in the Latin American Program. Open to other students by permission. A study of the interrelationship of economic, political, social, and cultural factors in explaining current Latin American reality.

Latin American Oriented Courses
The following courses may be presented to meet requirement (b) above. Students are advised to check with the departments concerned as to prerequisites for these courses.

Department of Economics:
Econ 360: Economics of Developing Areas (3)
Econ 361: Economic Development of Latin America (3)

Department of Fine and Performing Arts:
Mus 206: Latin American Music (3)

Department of Foreign Languages and Literatures:
Port 251: Intermediate Portuguese (4)
Span 251: Intermediate Spanish (4)
Span 252: Spanish Conversation and Composition (3)
Span 253: Commercial Spanish (3)
Span 254: Spanish Civilization (3)
Span 255: Latin American Civilization (3)
Span 256: Readings in Spanish Literature (3)
Span 257: Readings in Spanish American Literature (3)
Span 258: Masterpieces of Spanish Literature (3)
Span 259: Translation of Spanish Texts (3)
Span 300: Spanish Civilization and Culture (3)
Span 303, 304: Advanced Conversation and Composition (3, 3)
Span 305, 306: Survey of Spanish Literature (3, 3)
Span 307, 308: Survey of Spanish American Literature (3, 3)
Span 309, 310: Literature of the Golden Age (3, 3)
Span 313, 314: Spanish Literature of the Nineteenth Century (3, 3)
Span 315: Latin American Civilization and Culture (3)
Span 316: Social and Political Themes in the Latin American Novel (3)
Span 320: Linguistics of the Spanish Language (3)
Span 325: Major Spanish Writers (3)
Span 330: Spanish American Short Story (3)
Span 401: Spanish American Poetry (3)
Span 403, 404: Contemporary Spanish Literature (3, 3)
Span 407, 408: Spanish American Novel (3, 3)
Span 410: Cervantes (3)
Span 412: Special Studies in Hispanic Literature (3)

Department of General Studies:
LAC 151: Latin America (3)

Department of History:
Hist 271: Latin American History: The Colonial Era (3)
Hist 272: Latin American History: The Modern Era (3)
Hist 343, 344: Diplomatic History of the United States (3, 3)
Hist 363: The History of Argentina, Brazil, and Chile (3)
Hist 443: History of Spain and Portugal (3)
Hist 470: Diplomacy and War in Latin America (3)
Hist 475: History of Mexico (3)
Hist 478: Spanish Borderlands (3)
Hist 498: Directed Readings in History (3)
Hist 499: Senior Seminar in History (3)

Department of Philosophy and Religion:
Phil 231, 232: History of Western Philosophy (3, 3)
Phil 334: Latin American Thought (3)

Department of Public Affairs:
Geog 102: Physical Geography (3)
Geog 201: Geography of Latin America (3)
Govt 132: Introduction to International Politics (3)
Govt 350: Advanced International Relations (5)
Govt 450: Cross-National Political Study (5)

Sample Schedule for a Double Major in Latin American Studies and Spanish

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Fifth Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Span 151</td>
<td>LAS core discipline (300)</td>
</tr>
<tr>
<td>Engl 101</td>
<td>Latin American oriented elective</td>
</tr>
<tr>
<td>Social Science A</td>
<td>Span 303</td>
</tr>
<tr>
<td>Social Science B</td>
<td>Span 307</td>
</tr>
<tr>
<td>Natural Science</td>
<td>Span 300-400</td>
</tr>
<tr>
<td></td>
<td>17</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Sixth Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Span 152</td>
<td>LAS core discipline (300)</td>
</tr>
<tr>
<td>Engl 102</td>
<td>Latin American oriented elective</td>
</tr>
<tr>
<td>Social Science A</td>
<td>Span 304</td>
</tr>
<tr>
<td>Social Science B</td>
<td>Span 308</td>
</tr>
<tr>
<td>Natural Science</td>
<td>Span 401</td>
</tr>
<tr>
<td></td>
<td>18</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Semester</th>
<th>Seventh Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Span 251</td>
<td>LAS core discipline (400)</td>
</tr>
<tr>
<td>Hist 271</td>
<td>Span 407</td>
</tr>
<tr>
<td>English Literature</td>
<td>Span 300-400</td>
</tr>
<tr>
<td>Geography, mathematics</td>
<td>Oral Communication</td>
</tr>
<tr>
<td>art, music, philosophy or religion</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fourth Semester</th>
<th>Eighth Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Span 252</td>
<td>LAS 491</td>
</tr>
<tr>
<td>Span 255 (257)</td>
<td>Latin American oriented elective</td>
</tr>
<tr>
<td>Hist 272</td>
<td>Span 408</td>
</tr>
<tr>
<td>Span 325</td>
<td>Span 300-400</td>
</tr>
<tr>
<td>Musi 206</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>16</td>
</tr>
</tbody>
</table>

Department of Sociology:
Soci 225: Sociology of War and Peace (3)
Soci 308: Sociology of Race Relations and Minorities (3)
Soci 332: Sociology of Urban Communities (3)
Soci 420: Regional and Societal Development (3)
Requirements for the Major

This interinstitutional and interdisciplinary program culminates in the conferral of the Bachelor of Science with a major in law enforcement and requires a minimum of 128 hours of course work. Participants should familiarize themselves fully with the requirements for this degree and with the academic regulations of George Mason University. The program is designed principally for students who have completed their professional courses at Northern Virginia Community College and who desire to earn a baccalaureate degree. However, under appropriate circumstances it may be open to other students as well. The University offers no required professional courses in law enforcement, corrections or similar fields. Such work must be taken in an accredited program at another institution and transferred to the University. Credits earned in law enforcement courses may not be transferred to other majors. Generally, not more than one-half of the total of 128 semester hours required by this program may be transferred to the University from one or more junior or community colleges.

The quantitative and distributional requirements which must be fulfilled by candidates for a Bachelor of Science degree with a major in law enforcement are summarized below. English Composition or an equivalent course must be completed prior to entry into the program at George Mason University. Except for the specified hours of professional courses and English Composition, all requirements may be completed at this University.

Inquiries concerning this program should be directed to Dr. Stephen T. Early, Jr., Department of Public Affairs, George Mason University, Fairfax, Virginia 22030.
The following current requirements will remain effective for students entering the law enforcement degree program up to and including the Spring 1978 semester.

**Minimum Quantitative and Distributional Requirements by Subject**

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General</strong></td>
</tr>
<tr>
<td>English Composition</td>
</tr>
<tr>
<td>Literature</td>
</tr>
<tr>
<td>Art, music, religion and/or philosophy (excluding applied music and studio art courses)</td>
</tr>
<tr>
<td>American History or Principles of Economics</td>
</tr>
<tr>
<td>A two-semester sequence in one science with a laboratory</td>
</tr>
<tr>
<td><strong>Major requirements</strong></td>
</tr>
<tr>
<td>1. Law enforcement</td>
</tr>
<tr>
<td>These courses or their equivalents are required professional preparation for this degree program.</td>
</tr>
<tr>
<td>Introduction to Law Enforcement</td>
</tr>
<tr>
<td>Patrol Administration</td>
</tr>
<tr>
<td>Police Organization and Administration I, II, III</td>
</tr>
<tr>
<td>Special Enforcement Problems</td>
</tr>
<tr>
<td>Law Enforcement and the Community</td>
</tr>
<tr>
<td>Criminal Law, Evidence and Procedure I, II, III</td>
</tr>
<tr>
<td>Criminal Investigation Techniques I, II</td>
</tr>
<tr>
<td>2. Directly related</td>
</tr>
<tr>
<td>Government</td>
</tr>
<tr>
<td>To consist of separate courses in national and in state and local government and, at George Mason University, two courses from among those designated Govt 301, 330, and 415.</td>
</tr>
<tr>
<td>Psychology</td>
</tr>
<tr>
<td>To consist of Psyc 100, 215, 231 and 325.</td>
</tr>
<tr>
<td>Sociology</td>
</tr>
<tr>
<td>To consist of Soci 101, 152 and four courses selected from among Soci 202, 302, 305, 307, 308, 332 and 402.</td>
</tr>
<tr>
<td>3. Electives</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

The following revised requirements will become effective for students entering the law enforcement program during the 1978 Summer Session, and thereafter.

**Minimum Quantitative and Distributional Requirements by Subject**

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General</strong></td>
</tr>
<tr>
<td>English Composition</td>
</tr>
<tr>
<td>Literature</td>
</tr>
<tr>
<td>Art, music, religion and/or philosophy (excluding applied music and studio art courses)</td>
</tr>
<tr>
<td>American History or Principles of Economics</td>
</tr>
<tr>
<td>A two-semester sequence in one science with a laboratory</td>
</tr>
<tr>
<td><strong>Major requirements</strong></td>
</tr>
<tr>
<td>1. Law enforcement</td>
</tr>
<tr>
<td>These courses or their equivalents are required professional preparation for this degree program.</td>
</tr>
<tr>
<td>Introduction to Law Enforcement</td>
</tr>
<tr>
<td>Patrol Administration or Traffic Administration and Control</td>
</tr>
<tr>
<td>Police Organization and Administration I, II, III</td>
</tr>
<tr>
<td>Special Enforcement Problems</td>
</tr>
<tr>
<td>Criminology or Prevention and Control of Juvenile Delinquency</td>
</tr>
<tr>
<td>Criminal Law, Evidence and Procedure I, II, III</td>
</tr>
<tr>
<td>Criminal Investigation Techniques I, II or Principles of Criminal Investigation and Advanced Criminal Investigation</td>
</tr>
<tr>
<td>Law Enforcement and the Community</td>
</tr>
<tr>
<td>2. Directly related</td>
</tr>
<tr>
<td>Government – To consist of:</td>
</tr>
<tr>
<td>At GMU, Govt 103 or at NVCC, Govt 281 and 282 or 284 or 187 and</td>
</tr>
<tr>
<td>At GMU, Govt 204 or at NVCC, Govt 188 and</td>
</tr>
<tr>
<td>At GMU, two courses from among Govt 301, 330 and 415</td>
</tr>
<tr>
<td>Psychology – To consist of:</td>
</tr>
<tr>
<td>At GMU, Psyc 100 or at NVCC Psyc 201 and 202 or 203.</td>
</tr>
<tr>
<td>At GMU, Psyc 215, 231 and 325</td>
</tr>
<tr>
<td>Sociology – To consist of:</td>
</tr>
<tr>
<td>At GMU, Soci 101 or at NVCC, Soci 101 and 102 and</td>
</tr>
<tr>
<td>At GMU, Soci 152 or at NVCC, Soci 184 and 185 and</td>
</tr>
<tr>
<td>At GMU, four courses from among 202, 302, 305, 307, 308, 332 and 402</td>
</tr>
<tr>
<td>Restricted electives</td>
</tr>
<tr>
<td>Two of the following options must be included among elective courses:</td>
</tr>
<tr>
<td>At GMU, BuAd 261 or at NVCC, BuAd 251 and 252</td>
</tr>
<tr>
<td>At GMU, BuAd 201 or at NVCC, ACCT 111 and 112 or 211 and 212</td>
</tr>
<tr>
<td>At GMU, BuAd 212 or at NVCC, DAPR 106 and 120</td>
</tr>
<tr>
<td>At GMU, Govt 241</td>
</tr>
<tr>
<td>3. Free electives</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>
Requirements for the Major

B.A. Degree

In addition to general requirements, a minimum of 32 semester-hours in biology is required for a Bachelor of Arts degree with a major in biology. The courses selected must include the core consisting of 113, 114: Biological Science; 283: Cell Biology; 311: General Genetics; and 445: Ecology. Biology credit may be gained in biochemistry. General chemistry is required and organic chemistry, physical chemistry and introductory college physics and calculus are recommended.

B.S. Degree

In addition to the general requirements, a Bachelor of Science degree with a major in biology requires a minimum of 44 semester-hours in biology. The same core courses are required as for the B.A. degree, but organic chemistry is required in addition to general chemistry. Biology credit may be gained in biochemistry. Physical chemistry, introductory college physics, and calculus are recommended.

B.S. and B.A. Degree

All biology majors must demonstrate proficiency in elementary mathematics by either passing Math 101: Algebra and Elementary Functions or passing the mathematics department proficiency test for that course. This mathematics requirement is a prerequisite for Biol 283, normally taken in the sophomore year. To facilitate the completion of this requirement prior to enrollment in Biol 283, the Department of Mathematics proficiency examination will be administered in the lectures of Biol 113 during the first week of class. Students who do not obtain a satisfactory grade on the examination at this time may complete the mathematics requirement by satisfactory completion of Math 101 or by later obtaining a passing grade on the mathematics proficiency examination at one of those times normally set aside by the Department of Mathematics.

Students planning to enter medical, dental or veterinary schools may choose to major in biology. The specific requirements for admission to these schools vary considerably, and frequently may be met by either a B.A. or B.S. degree. Most programs, however, do require that applicants complete organic chemistry (Chem 213-214) and a year of physics (Phys 101-102). Also a course in calculus is required by some and highly recommended by others. Some schools prefer students with more extensive backgrounds in biological or physical sciences, while others indicate that the undergraduate years are better devoted to humanistic pursuits that are unavailable in professional schools. Because these schools vary both in their philosophies and in their specific requirements, it is wise for the student to become aware of such information well before application for admission. A member of the Department of Biology Health Sciences Committee may be contacted for additional information. The Commonwealth of Virginia provides veterinary medicine education for its residents through arrangements with the University of Georgia and Ohio State University. Information on this program is available from the Department of Veterinary Science, Virginia Polytechnic Institute and State University, Blacksburg, Va. 24061.
Students intending to obtain a Secondary Teaching Certificate should consult with the Secondary Education Adviser in the Department of Biology in the freshman year, if possible. A planned, approved program must be followed.

Biology Courses

Natural Science Requirements

Students not majoring in science or mathematics should fulfill the natural science requirement with the two-semester laboratory sequence 103, 104. If a student has passed 103, or 103 and 104, and subsequently decides to become a biology major, the student should consult the Chairman of the Department of Biology. If it is deemed necessary for the student to complete the sequence 113, 114, which would normally be the case, then only two semester-hours of credit for each of the completed courses 103, 104 will be permitted to be offered toward the B.A. degree; however, these hours may be applied toward the major.

Sample Schedule for B.A. with Major in Biology

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Fifth Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Written Communication (IA)</td>
<td>Biol 311 or 445 (VII)</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Foreign Language (IC)</td>
<td>Humanities elect (IIB or C)</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Chem 111 (V)</td>
<td>Soc Sci or Non-West elect</td>
</tr>
<tr>
<td>4</td>
<td>(IV or VI)</td>
</tr>
<tr>
<td>Biol 113 (VII)</td>
<td>Biol elect, 300 or 400</td>
</tr>
<tr>
<td>4</td>
<td>level (VII)</td>
</tr>
<tr>
<td>15</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Sixth Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Written Communication (IA)</td>
<td>Biol 445 or 311 (VII)</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Foreign Language (IC)</td>
<td>Humanities elect (IIB or C)</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Chem 112 (V)</td>
<td>Soc Sci or Non-West elect</td>
</tr>
<tr>
<td>4</td>
<td>(IV or VI)</td>
</tr>
<tr>
<td>Biol 114 (VII)</td>
<td>Biol elect, 300 or 400</td>
</tr>
<tr>
<td>4</td>
<td>level (VII)</td>
</tr>
<tr>
<td>15</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Semester</th>
<th>Seventh Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Literature (IIIA)</td>
<td>Soc Sci or Non-West elect</td>
</tr>
<tr>
<td>3</td>
<td>(IV or VI)</td>
</tr>
<tr>
<td>Foreign Language (IC)</td>
<td>Soc Sci or Non-West elect</td>
</tr>
<tr>
<td>4</td>
<td>(IV or VI)</td>
</tr>
<tr>
<td>Elective (IIA)</td>
<td>Elective</td>
</tr>
<tr>
<td>3</td>
<td>3-4</td>
</tr>
<tr>
<td>Biol 283 or Biol elect (VII)</td>
<td>Elective</td>
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<tr>
<td>4</td>
<td>3-4</td>
</tr>
<tr>
<td>14</td>
<td>Elective</td>
</tr>
<tr>
<td>15-17</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fourth Semester</th>
<th>Eighth Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Literature (IIIA)</td>
<td>Soc Sci or Non-West elect</td>
</tr>
<tr>
<td>3</td>
<td>(IV or VI)</td>
</tr>
<tr>
<td>Biol elect or Biol 283 (VII)</td>
<td>Soc Sci or Non-West elect</td>
</tr>
<tr>
<td>4</td>
<td>(IV or VI)</td>
</tr>
<tr>
<td>Oral Communication (IB)</td>
<td>Elective</td>
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<tr>
<td>3</td>
<td>3-4</td>
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<tr>
<td>Biology elect (VII)</td>
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<tr>
<td>4</td>
<td>3-4</td>
</tr>
<tr>
<td>14</td>
<td>Elective</td>
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<tr>
<td>15-17</td>
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</tr>
</tbody>
</table>

| Total (VIII) | 116-120 |

Sample Schedule for B.S. with Major in Biology

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Fifth Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engl 101</td>
<td>Biol 311 or 445</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Biol 113</td>
<td>Biology elective</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Chem 111</td>
<td>Elective</td>
</tr>
<tr>
<td>4</td>
<td>3-4</td>
</tr>
<tr>
<td>Non-science elective</td>
<td>Elective</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>15</td>
<td>3-4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Sixth Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engl 102</td>
<td>Biol 445 or 311</td>
</tr>
<tr>
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For students intending to pursue graduate study in biology the following are recommended:

1. Foreign language (German, Russian, or French)
2. Math 113-114
3. Math 266
4. Biostatistics
124-125 Human Anatomy and Physiology (4-4)
An introductory course in the microscopic and gross structure of the major organ systems of the human body and their integrated function. Three lecture hours, three laboratory hours. Open only to nursing and physical education majors. The course must be taken in the sequence 124-125. This course will not satisfy the natural science requirement in the College of Arts and Sciences. Not available for biology major credit.

140 Plants and Man (4)
An introduction to the relationships between cultivated plants and man. The uses of various plants by man and the role of plants in the history and culture of man, as well as man’s impact on the vegetable world, particularly as it relates to present agricultural practices. The laboratory is devoted to familiarization with interesting economic plants and practice in horticulture and gardening. Three lecture hours, three laboratory hours. Not available for credit toward the major in biology.

185 Introductory Microbiology (4)
Prerequisites: Biol 124-125 or Biol 113 and 114 or permission of instructor. An introduction to the bacteria, yeasts, molds, viruses, rickettsiae, and endoparasites with emphasis on organisms important to human health and disease. A discussion of immunity and serological procedures. Laboratory includes sterile technique and culture methods for microorganisms. Three lecture hours, three laboratory hours. Only open to nursing majors. Three lecture hours, six laboratory hours. Not available for biology major credit.

211 Heredity and Society (3)
Basic principles of heredity, including elementary probability, the nature of the gene, mutations and mutant genes in populations. Some emphasis will be placed upon human hereditary diseases, genetic counseling and the application of genetics to improving the quality of life. Three lecture hours. Not available for biology major credit.

220 Comparative Chordate Anatomy (4)
Prerequisite: Biol 113, 114 or permission of instructor. A comparison of the anatomy and morphology of the major chordate groups. The laboratory will emphasize shark, Necturus, and rabbit. Two lecture hours, six laboratory hours.

221 Vertebrate Zoology (4)
Prerequisite: Eight semester-hours of credit in 100 level biology or permission of instructor. The phylogeny and systematics of the major vertebrate groups. Some emphasis will be given to ecological adaptation. The laboratory will include field studies of local fauna. Two lecture hours, six laboratory hours.

225 Human Reproduction and Sexuality (3)
A detailed examination of the anatomy and physiology of the human reproductive systems; the physiology of sexual intercourse and sexual behavior; normal pregnancy, birth and associated events; congenital conditions; sex determination and its expression throughout life; diseases of the reproductive organs, modern technical developments related to human reproduction. Three lecture hours. Not available for biology major credit.

230 Man and the Biology of the Sea (3)
An introduction to the organisms of oceans and bays and their physical and chemical environment. Emphasis will be placed on man’s fisheries and pollution activities. Three lecture hours. Not available for credit toward the major in biology.

243 Algae and Fungi (4)
Prerequisite: Biol 113, 114 or permission of instructor. An introduction to the biology of the algae and fungi with emphasis on their morphology and life-histories. Also included are physiology, taxonomy, ecology, evolution and importance to man. Three lecture hours, three laboratory hours.

245 Plant Communities (4)
Prerequisite: Eight semester-hours of credit in 100 level biology or permission of instructor. Plant associations and formations and their successions in North America. Three lecture hours, three laboratory hours.

262 Animal Physiology (4)
Prerequisites: Biol 113, 114 and Chem 111-112. A general consideration of the functions of animals, including vertebrates and invertebrates, emphasizing the common life problems that animals face and the variety of methods for solving them. Such processes as nutrient procurement and processing, respiratory gas exchange, electrolyte balance, excretion, circulation, reproduction, and neuroendocrine integration and regulation are examined. Three lecture hours, three laboratory hours.
311 General Genetics (4)
Prerequisites: Bioi 283, and junior standing or permission of instructor. A study of the basic principles of heredity and the modern developments in the field. Three lecture hours, three laboratory hours.

312 Biostatistics (4)
Prerequisite: Bioi 113, 114 and permission of the instructor. Applied statistical analysis of biological data, including experimental designs, descriptive statistics, parametric and related nonparametric inferential statistics, and correlation-regression techniques. Three lecture hours, three laboratory hours.

322 Patterns of Animal Development (4)
Prerequisites: Bioi 113 and 114 and junior standing or permission of the instructor. The early development and organogenesis of animals with a discussion of the phenomena of fertilization, induction, growth, metamorphosis, regeneration, and differentiation. The laboratory presents the developmental patterns of major groups of animals with emphasis on the echinoderm, frog, chicken, and pig. An introduction to some techniques of experimental embryology is included. Two lecture hours, six laboratory hours.

324 Introductory Animal Behavior (4)
Prerequisite: Bioi 113, 114 or permission of instructor. A study of the behavior of animals under natural, semi-natural, and laboratory conditions. Emphasizes function, development, and evolution of behavior. Field investigations and laboratory projects will be conducted. Three lecture hours, three laboratory hours.

331 Invertebrate Zoology (4)
Prerequisite: Eight semester-hours of credit in 100 level biology or permission of instructor. Survey of the invertebrate phyla, excluding insects, to show the morphology, phylogeny, and general biology of these groups. Three lecture hours, three laboratory hours.

332 Insect Biology (4)
Prerequisite: Eight semester-hours of credit in 100 level biology or permission of instructor. A survey of the insects including taxonomy, morphology, physiology, behavior, ecology, and economic importance. Three lecture hours, three laboratory hours.

342 Plant Morphology (4)
Prerequisite: Bioi 113, 114 or permission instructor. Origin and development of organs, tissue systems, and life cycles of plants, with phylogenetic comparisons beginning with mosses and liverworts and continuing with vascular plants. Three lecture hours, three laboratory hours.

344 Taxonomy of Flowering Plants (4)
Prerequisite: Eight semester-hours of credit in 100 level biology or permission of instructor. A study of the principles of classification and identification of flowering plants (Anthophyta) with emphasis on the local flora. Three lecture hours, three laboratory hours.

381 Immunology (4)
Prerequisite: Bioi 283 and a microbiology course or permission of the instructor. Introduction to the principles and concepts of immunology. Characteristics of antigens, antibodies, immunological reactions, hypersensitivity, and immune response. Three lecture hours, three laboratory hours.

382 Virology (3)
Prerequisites: Bioi 283 or permission of instructor. Fundamental concepts of the nature of viruses, viral classification, morphology, chemistry, serological properties, and assay methods. A study of model virus systems illustrating current knowledge of modes of replication of viruses. Concepts on tumor viruses emphasized. Three lecture hours.

383 Microbial Genetics (3)
Prerequisite: Bioi 311 or equivalent. A study of genetic systems in microorganisms, including life cycles, sexuality, reproductive adaptations, and patterns of inheritance. Microbial groups to be covered include viruses, bacteria, protozoa, algae, and fungi. Three lecture hours.

384 Research Techniques in Molecular Biology (4)
Prerequisites: Bioi 283, Bioi 311, Chem 213-214, and senior standing. Recommended: Bioi 281. A laboratory course designed to acquaint students with research methods in molecular biology stressing genetic, biochemical, and microbiological techniques. Two lecture hours, six laboratory hours.

385 Population Genetics (3)
Prerequisite: Bioi 311 or equivalent. A study of the genetic structure and dynamics of populations, both real and ideal. The effects of gene interactions between selection, mutation, mating systems, and sampling error. Applications of population genetic concepts towards understanding natural variation, evolutionary change, quantitative inheritance, human populations, and molecular evolution. Three lecture hours.

386 Molecular Genetics (3)
Prerequisite: Bioi 311 or permission of the instructor. A study of the gene at the molecular level. Topics covered will include gene structure and function and the control of gene expression in prokaryotes and eukaryotes. Three lecture hours.

387 Mammalian Physiology (4)
Prerequisites: Bioi 262 and 283. A study of the functions of mammals, including regulation of the internal environment, neural and endocrine control mechanisms, the physiology of movement and exercise, and reproduction. Small mammals and humans will be subjects for observations of these activities in the laboratory. Three lecture hours, three laboratory hours.

388 Plant Anatomy (4)
Prerequisite: Bioi 113, 114 or permission of instructor. A detailed study of plant cells and tissues, their derivation and development. Embryological development is included. Emphasis will be on the angiosperms. Three lecture hours, three laboratory hours.

389 Development in Flowering Plants (3)
Prerequisites: Bioi 441 or permission of the instructor. The role of cytokidifferentiation in developmental sequences of flowering plants. Topics to be covered include germination, juvenility, flowering, senescence, fruiting and tuber and bulb formation. The environmental and hormonal influences on these processes will also be discussed. Three lecture hours.

391 Ecology (4)
Prerequisites: Bioi 283 and one other course in biology and junior standing, or permission of instructor. The physical environment, energy flow, populations as units of structure and function, the dynamics of communities and succession. The laboratory work will include a study of some ecosystems in the Northern Virginia area. Three lecture hours, three laboratory hours.

392 Environmental Physiology (3)
Prerequisite: Bioi 262. The physiological responses of animals to environmental factors. Topics to be examined will include biological rhythms, changes in physiology during acclimation or adaptation to new environments, and the effects of temperature, moisture, altitude and environmental quality upon organisms. Emphasis on vertebrates. Three lecture hours.

393 Microbial Ecology (4)
Prerequisite: Bioi 281 or permission of instructor. An introduction, in detail, to the principles and methods of microbial ecology. A study of the relationships between microorganisms and their natural environment, and the methodology for observing their biochemical activities in those environments. Three lecture hours, three laboratory hours.

394 Symbiology (4)
Prerequisite: Bioi 331 or permission of instructor. An introduction to concepts of symbiology and evolution of these relationships from structural, physiological, and behavioral standpoints. Three lecture hours, three laboratory hours.
449 Marine Ecology (3)
Prerequisite: Biol 445 or permission of the instructor. The plants and animals of marine environments and the physical and chemical conditions which affect their existence. Three lecture hours.

462 Advanced Cellular Physiology (3)
Prerequisites: Biol 283, eight semester-hours of inorganic chemistry and four semester-hours of organic chemistry, or permission of instructor. A study of the fundamental physiological properties and correlated anatomy of cells. Three lecture hours.

464 Plant Physiology (4)
Prerequisite: Biol 283 or permission of instructor. The physiology of plant cells and plant organ systems covering such topics as structure and function of cell organelles, photosynthesis, mineral and water nutrition, plant development and its regulation, and tropic responses to environmental stimuli. Three lecture hours, three laboratory hours.

465 Histology (4)
Prerequisites: Biol 113 and 114 and junior standing or permission of instructor. A study of the microscopic structure of the tissues and organs of animals with emphasis on the vertebrates. Three lecture hours, three laboratory hours.

471 Evolution (3)
Prerequisite: Biol 311 or permission of instructor. A study of the process of evolution with emphasis on the role of genetics, the properties of populations, and upon population differentiations. Three lecture hours.

473 Field Studies in Biology (4)
Prerequisite: Eight semester-hours of credit in 100 level biology or permission of instructor. A course for the biology teacher, or the natural historian, on the identification and biology of plants and animals in the Northern Virginia area. Two lecture hours, six laboratory hours. Not available for credit toward the major in biology.

480 Ichthyology (4)
Prerequisite: Biol 113, 114, or permission of instructor. An introduction to the study of fishes, their systematics, evolution, physiology, ecology and behavior. Three lecture hours, three laboratory hours.

482 Ornithology (4)
Prerequisite: Biol 113, 114, or permission of instructor. A study of the evolution, systematics, physiology, ecology and ethology of birds. Emphasis will be placed on field studies. Two lecture hours, six laboratory hours.

483 Mammalogy (4)
Prerequisite: Biol 113, 114, or permission of instructor. A study of the evolution, systematics, physiology, ecology and ethology of mammals. Emphasis will be placed on field studies. Two lecture hours, six laboratory hours.

484 Vertebrate Paleontology (4)
Prerequisite: A course in vertebrate zoology or comparative anatomy, or permission of instructor. A study of the evolutionary patterns of the vertebrates. Emphasis will be placed on major adaptive radiations. Two lecture hours, six laboratory hours.

485 Herpetology (4)
Prerequisite: Biol 113, 114, or permission of instructor. A study of the evolution, systematics, physiology, ecology and ethology of amphibians and reptiles. Emphasis will be placed on field studies. Two lecture hours, six laboratory hours.

490 Tropical Field Studies (3)
Prerequisite: Biology major with senior standing and permission of instructor. A biological survey of a tropical environment. Total class time: 15 lecture hours, 90 laboratory hours.

495-496 Special Readings in Biology (1-1)
Prerequisite: Enrollment is restricted to senior majors in biology with permission of the instructor and the Chairman of the Department of Biology. A literature investigation of a specific topic under the guidance of a member of the faculty resulting in a demonstration of mastery of the subject by examination or paper. These courses may be taken concurrently or sequentially.

497, 498 Special Problems in Biology (2, 2)
Prerequisite: Enrollment is restricted to senior majors in biology with permission of the instructor and the Chairman of the Department of Biology. A laboratory or field research project leading to a written report of the research. The research and paper will be completed under the guidance of a member of the faculty. Biol 495-496 may be substituted for Biol 497. The total credit which can be received for Biol 495-496 and Biol 497, 498 will be four (4) hours.

Chemistry

Department of Chemistry Faculty

Professors: Walter (Chairman), Cozzens, Krug
Associate Professors: Feinstein, Greer, Mose, Mushrush, Stalick
Assistant Professors: Berry, Davies, Deanhardt, Nakadomari, Roth, Shaub, Slayden
Lecturers: Graus, Neece, Weems
Requirements for the Major

B.A. Degree

This program, when coordinated with the necessary courses in education, will meet requirements for state certification in chemistry for secondary teachers. It also meets requirements for entrance to medical and other professional schools (see below). In addition to general degree requirements, a minimum of 34 semester-hours in chemistry is required for a Bachelor of Arts degree with a major in chemistry. These must include Chern 111-112, 213-214, 215, 218, 220, 321, 331, 332, 336 and 337. Additional minimum requirements include Math 113, 114, 213 and Phys 101-102.

B.S. Degree

This program is accredited by the American Chemical Society; students who complete the program will be certified to the Society. Students who plan professional careers in chemistry should choose the B.S. program.

Minimum course requirements are:

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Required courses in chemistry must include those indicated for the B.A. degree plus Chern 422, 441, and 445. Mathematics must include Math 113, 114, 213, 214. Physics must include Phys 113, 114, 213, 214, 215, and 216.

Premedical, predental and preveterinary students

Students planning on medical, dental or veterinary careers may meet the requirements of these professional schools by majoring in chemistry. Such students should choose the B.A. program and should consult with the premedical adviser for chemistry.

Requirements for Nursing Program

Laboratory science requirement for the B.A. and chemistry requirement for nursing are satisfied by Chern 103-104.

Sample Schedule for B.A. in Chemistry

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Chemistry Courses

Chem 111-112 is a prerequisite to all chemistry courses above the 100 level.

103-104 Chemical Science in a Modern Society (4-4)
A terminal course in chemistry for non-science and nursing majors. A survey of the principles and application of chemistry with emphasis on pertinent topics such as environmental pollution, medicine, synthetic, earth and marine science. Three lecture hours, three laboratory hours.

105 Man's Chemical World (3)
A study of the chemical nature of the world in which we live. Emphasis will be given to the nature and importance of the chemical pollutants of our environment, the chemistry of the natural world as well as industrial and agricultural chemistry. Students who have credit for Chem 103-104 or 111-112 are not eligible to take this course. Three lecture hours.

111-112 General Chemistry (4-4)
A survey of the basic facts and principles of chemistry including atomic and molecular structure, the gas laws, kinetics, equilibrium, electrochemistry, and nuclear chemistry. The properties and uses of the more important elements and their compounds. Students majoring in science, engineering, or mathematics should choose this course. Three lecture hours, three laboratory hours.

213-214 Organic Chemistry (3-3)
Prerequisite: Chem 111-112: corequisite for 213: Chem 215. Corequisite for 214: Chem 218 or 220. The theoretical, synthetic, industrial and biological aspects of the chemistry of carbon compounds. In the first semester all students take concurrently the same laboratory course, Chem 215. In the second semester students may choose either of two accompanying laboratory courses, Chem 218 or 220. Those majoring in chemistry are required to take both, and others may do so. Three lecture hours.

215 Organic Chemistry Laboratory I (1)
Corequisite: Chem 213. Elementary laboratory techniques and reactions arranged to accompany Chem 213. Three laboratory hours.

218 Organic Chemistry Laboratory II (1)
Corequisite: Chem 214. Continuation of Chem 215 with emphasis on theoretical aspects and preparations. This course is arranged to accompany Chem 214. Three laboratory hours.

220 Organic Chemistry Laboratory II (1)
Corequisite: Chem 214. Continuation of Chem 215 with emphasis on separation and identification of organic compounds using both classical and instrumental methods. This course is arranged to accompany Chem 214. Three laboratory hours.

222 General and Biochemical Equilibrium (2)
Prerequisite: Chem 111-112. Study of equilibrium in ionic and biochemical solutions and of related homogeneous and heterogeneous separations. Topics will include polyfunctional acids and bases, complex ion formation, chromatography, and ion exchange.

321 Elementary Quantitative Analysis (4)
Prerequisite: Chem 111-112. Chemical principles with particular emphasis on ionic equilibria. The laboratory work consists of gravimetric, volumetric and instrumental methods illustrating the principal types of quantitative determinations. Where possible, work is assigned according to a student's major interest. Two lecture hours, six laboratory hours.

331 Physical Chemistry I (3)
Prerequisite: Chem 111-112, Math 113, 114. Prerequisite or corequisite: Phys 101 or 113. This course and Chem 332 constitute a year-long survey of physical chemistry covering topics such as thermodynamics, equilibria, kinetics, solution properties, elementary quantum theory, electrochemistry, atomic and molecular structure, and nuclear chemistry. Three lecture hours.

332 Physical Chemistry II (3)
Prerequisite: Chem 331. Continuation of Chem 331. Three lecture hours.

335 Physical Chemistry for the Life Sciences (3)
Prerequisite: Chem 111-112. This course will deal with the classical topics of physical chemistry with an emphasis on their application to biology and health sciences. Rigorous mathematical approaches to the theory of physiochemical processes will be avoided. Topics covered will include gas laws and kinetic theory, structure of solids and liquids, applied thermodynamics, kinetics and chemical equilibria. Where possible, examples and applications will be used. Not open to students who have passed Chem 331. Credit is not allowed toward a major in chemistry. Three lecture hours.

336 Physical Chemistry Laboratory I (2)
Prerequisite or corequisite: Chem 331. Quantitative experimental study of physical chemical principles. This course and Chem 337 constitute a year-long introduction to laboratory practices and theories of experimental physical chemistry. Three laboratory hours, one hour recitation.

337 Physical Chemistry Laboratory II (2)
Prerequisite or corequisite: Chem 331. Continuation of Chem 336. Three laboratory hours, one hour recitation.

341 Fundamental Inorganic Chemistry (3)
Prerequisite: Chem 111-112. The descriptive chemistry, including chemical properties, reactions, and reaction mechanisms, of inorganic elements and compounds. Topics will include main group and transition elements, organometallic compounds and bioinorganic chemistry.

412 Special Topics in Organic Chemistry (3)
Prerequisite: Chem 213-214. An advanced study of synthetic and mechanistic organic chemistry with particular emphasis on selected topics such as heterocycles, natural products and biologically active compounds. Finally, the relationship of applied organic chemistry to consumer products, including drugs and agricultural chemicals, will be examined.

422 Instrumental Analysis (4)
Prerequisite: Chem 321; prerequisite: Chem 331 or permission of instructor. A study of the application of physiochemical methods to analytical chemistry, i.e., the quantitative study of chemical reactions by the use of modern analytical instrumentation. It offers the student an introduction to the theory and practice of spectroscopy; ultraviolet, visible, and infrared absorption spectroscopy, electrical methods of analysis, gas chromatography; nonaqueous studies; and ion exchange. Two lecture hours, six laboratory hours.

431 Chemical Thermodynamics (3)
Prerequisite: Chem 331, 332. Applies the laws of thermodynamics to problems in chemistry. Topics surveyed include gas phase reactions, solutions, phase transitions and equilibria, electrochemical cells, free energy and chemical spontaneity, surface chemistry, multicomponent mixtures and transport phenomena.

432 Atomic and Molecular Structure (3)
Prerequisite: Chem 331, 332. An introduction to modern theories of the nature of the chemical bond and application of these theories to the kinetics of chemical systems. Studies are made of the various experimental techniques which are applied to the elucidation of molecular structure. Three lecture hours.

441 Properties and Bonding of Inorganic Compounds (3)
Prerequisite: Chem 213-214; corequisite or prerequisite: Chem 331, 332. Interpretation of physical and chemical properties of inorganic compounds in terms of currently used bonding concepts. Topics will include structure and bonding of ionic compounds, covalent bonding including valence-bond, crystal-field, and molecular orbital theories, and the stereochemical, electronic, and magnetic properties of elements.

445 Inorganic Preparations and Techniques (3)
Prerequisite: Chem 321. Application of the techniques of inorganic chemistry to the preparation and purification of selected substances. One lecture hour, six laboratory hours.

451 452 Special Projects in Chemistry (2, 2)
Prerequisite: Senior standing in chemistry and permission of the departmental research committee. An introduction to chemical research or development. Will include literature search, conferences, and laboratory. Written and oral technical reports are required. Six hours weekly.

461, 462 Biochemistry (3, 3)
Prerequisite: Chem 213-214. Chem 461 is a prerequisite for Chem 462. Chemistry of biologically important compounds, viz. proteins, carbohydrates, lipids and nucleic acids, and their interrelations.
Geology Courses

101 Physical Geology (4)
Survey of the geologic features of the earth—its rocks and minerals, its surface features, and the processes acting upon and within the earth's crust. This course, together with Geol 102, satisfies the eight hour laboratory science requirement for the B.A. degree. Three lecture hours, three laboratory hours.

102 Historical Geology (4)
Prerequisite: Physical Geol 101 or permission of instructor. History and development of the earth as revealed through a sequence of geologic events and processes. Subjects studied will include geologic origins of the earth, succession of life forms, geologic ages and time. Three lecture hours, three laboratory hours.

201 Mineralogy (3)
Prerequisite: Geol 101, 102. The genesis of minerals and their crystallographic, chemical and physical properties. Laboratory work includes field collection and identification of minerals. Two lecture hours, three laboratory hours.

202 Invertebrate Paleontology (3)
Prerequisite: Geol 101, 102. The classification, evolutionary trends and distribution of the common invertebrate fossils. Laboratory work includes field collection of fossils, their preparation and identification. Two lecture hours, three laboratory hours.

Economics

Department of Economics Faculty
Professors: Snavely (Chairman), Bloch
Associate Professors: Bennett, Marlin, Phillips
Assistant Professors: Alford, Chung, Cohen, Holden, Johnson, M., Pennington, Wiest
Acting Assistant Professors: Mayberry, Nagarajan, Sutliffe, Wells
Lecturers: Arafat, Barsby, Frisch, Johnson, T., Malkerson, McElhone, Morgan, Roberts, Skrable, Turner, Wagner
Requirements for the Major

B.A. Degree
Students majoring in economics must satisfy general requirements set for the Bachelor of Arts degree at George Mason University. In addition they must present 33 hours of work in economics, to include Econ 306 and 311. Six hours of statistics must be completed in addition to the 33 hours of economics mentioned above.

Credit hours in economics may be earned in excess of 42 but the surplus hours must be listed as elective hours on the degree application form.

B.S. Degree
In addition to general requirements for a Bachelor of Science degree listed in the Catalog, the B.S. with a major in economics requires 39 hours of credit in economics to include Econ 306, 311 and 345. In addition to the 39 hours of credit in economics, students must also complete BuAd 201 and 261-262; Math 113, 114, and 261 or 266; and a two-semester sequence in a laboratory science.

Students who contemplate graduate study in economics are advised to complete at least one course in calculus beyond Math 114.

Secondary Teaching Certification
Students intending to obtain a Secondary Teaching Certificate should consult with the Secondary Education Adviser in the Department of Economics in the freshman year, if possible. A planned, approved program must be followed.

Economics Courses

103 Contemporary Economic Principles and Issues I (3)
An introduction to microeconomics in the context of current problems. The course explores how the market mechanism allocates scarce resources among competing uses. It utilizes the basic tools of supply and demand, and production and distribution theory, to analyze problems as diverse as public education, environmental quality, poverty and discrimination, the negative income tax, energy, price controls, and illegal activities. May not be taken for credit by students who have passed Econ 102. (May be taken after Econ 104.)

104 Contemporary Economic Principles and Issues II (3)
An introduction to macroeconomics in the context of current problems. Topics considered include national income analysis, money and banking, economic growth and stability, unemployment, inflation, and the role of government in the economy. May not be taken for credit by students who have passed Econ 101. (May be taken before Econ 103.)

150 The Urban Economy (3)
A study of metropolitan economic activity. A problems-oriented course, designed to develop a general understanding of the nature and applicability of economic analysis. Topics to be covered will include: housing and urban renewal; pollution; transportation; poverty and discrimination; urban, suburban and regional development and growth; and metropolitan finance.

306 Intermediate Microeconomics (3)
Prerequisite: Econ 103, 104. An examination of basic factors of price and distribution theory, including analysis of demand, costs of production, and supply relationships, and price and output determination under various market structures. May not be taken for credit by students who have passed Econ 202.

309 Economic Problems and Public Policies (3)
Prerequisite: Econ 103 and 104 or permission of instructor. A detailed study of important economic problems in light of current and proposed public policies. May not be taken for credit by students who have passed Econ 406.
310 Money and Banking (3)
Prerequisite: Econ 103 and 104 or permission of instructor. An examination of monetary and of commercial and central banking systems, the economic system with particular emphasis upon their relationship with American government programs, fiscal policies, and controls. May not be taken for credit by students who have passed Econ 301.

311 Intermediate Macroeconomics (3)
Prerequisite: Econ 103 and 104 or permission of instructor. The study of aggregate economic accounts, including the measurement of national income, determinants of levels of income and output, and causes and solutions for problems of unemployment, inflation, and economic growth. May not be taken for credit by students who have passed Econ 201.

316 Economic Growth and Business Cycles (3)
Prerequisite: Econ 310 or 311 or permission of instructor. An examination of the factors contributing to sustained economic growth with additional emphasis on business fluctuations and their measurement. May not be taken for credit by students who have passed Econ 303.

320 Labor Problems (3)
Prerequisite: Econ 103 and 104 or permission of instructor. A study of the operation of American labor unions and of their effect upon our society. Causes of and proposed solutions to selected problems will be considered. May not be taken for credit by students who have passed Econ 300.

321 Economics of Labor (3)
Prerequisite: Econ 306. A course analyzing economic factors that determine levels of wages and employment and their economic consequences. Attention is directed to recent developments in unionism, collective bargaining, and industrial technology. May not be taken for credit by students who have passed Econ 420.

330 Public Finance (3)
Prerequisite: Econ 306 or permission of instructor. An examination of intergovernmental financial relationships, types, incidences and consequences of taxation, other sources of governmental income, governmental expenditures and their effects, public economic enterprises, public borrowing, debt management and its economic effects. May not be taken for credit by students who have passed Econ 302.

340 Introduction to Mathematical Economics (3)
Prerequisite: Econ 306 and 311, and Math 113 and 114, or permission of instructor. Among the topics to be covered are mathematical treatment of the theory of firm and household behavior, stabilization policy, growth theory, input-output analysis, and linear programming.

345 Introduction to Econometrics (3)
Prerequisite: Econ 306 and 311, and BuAd 261 and 262. An examination of modern statistical techniques in estimating economic relations. May not be taken for credit by students who have passed Econ 412.

350 Regional and Urban Economics (3)
Prerequisite: Econ 306 or permission of instructor. The economics of regional development and metropolitan growth, including the locational decisions of households and firms, and problems associated with high density urban economic activity, such as neighborhood effects, traffic congestion, pollution, discrimination and spatial monopoly.

360 Economics of Developing Areas (3)
Prerequisite: Econ 103 and 104 or permission of instructor. An analysis of major aspects of economic growth characteristic of developing countries. Recent theories of economic development; obstacles to development; policies and planning for development. May not be taken for credit by students who have passed Econ 307.

361 Economic Development of Latin America (3)
Prerequisite: Econ 104 or permission of instructor. An examination of the economic development, institutions and problems of Latin America. May not be taken for credit by students who have passed Econ 308.

370 Economics of Industrial Organization (3)
Prerequisite: Econ 306 or permission of instructor. An analysis of economic factors influencing industrial structure and of the conduct and performance of industry associated with different market structures. May not be taken for credit by students who have passed Econ 304.

375 Economics of Transportation (3)
Prerequisite: Econ 103, 104. This course is designed to provide insight into the workings of the transportation industry in the United States. It discusses the differing economic structures of air, motor, rail and water transport and introduces decision rules for choosing the appropriate mode of transportation for any particular transportation requirement. Students will explore regulation of prices charged for service, services provided by each mode, and economic problems besetting each of the competing types of carriage.

380 Comparative Economic Systems (3)
Prerequisite: Econ 103 and 104 or permission of instructor. An examination of the theory, programs and practices of selected major contemporary economic systems, including capitalism, socialism, and fascism. Special attention is given to the role of planning in various countries. May not be taken for credit by students who have passed Econ 401.

390 International Economics (3)
Prerequisite: Econ 306 or permission of instructor. A survey of the foreign exchange market, of the balance of payment, of foreign trade policies, and of the Classical, Neoclassical and modern theories of international trade. May not be taken for credit by students who have passed Econ 404.

481 The Development of Economic Thought (3)
Prerequisite: Econ 306 and 311 or permission of instructor. An examination of the main developments in economic thought from 1500 to the present with emphasis upon their historical origins, their impact on contemporary economics, and their theoretical validity. May not be taken for credit by students who have passed Econ 403.

497 Economic Research Workshop (3)
Prerequisite: Econ 306 and 311 (Intermediate Micro- and Macroeconomics), BuAd 261-262 (Statistics). Students engage in individual research projects on topics proposed by the workshop instructor or in conjunction with other department courses, including research design, data collection, the use of program packages such as SPSS and ESP, data processing and analysis, culminating with the preparation of a substantial paper.

498 Seminar in Economics (3)
Prerequisite: Econ 306 and 311 and permission of instructor. A course in which the more important current economic problems will be studied and discussed in seminar form. May not be taken for credit by students who have passed Econ 430.

499 Independent Study (1-3)
Prerequisite: Open only to economics majors with senior standing and with the permission of the department and the instructor. Individual study of a selected area of economics. A directed research paper will be required.
Requirements for the Major

The English Department offers two major programs: the Literature Program and the Writing Program. The requirements for the Literature Program took effect with the Fall 1975 semester, and the requirements for the Writing Program will take effect in Fall 1977; see "Catalog Requirements for Graduation."

The Literature Program

In addition to general requirements for a Bachelor of Arts degree, students who wish to receive the traditional B.A. in English Literature must complete 30 hours of course work beyond sophomore English with the following distribution:

1. One three-semester hour course from the following: Engl 391, 392, 396, 455, 467, and 480. This requirement gives the student the opportunity to increase his understanding of the English language, either through an analysis of language (391, 392, 455 and 480), or through a making of language (396 and 467), and consequently to appreciate better how language functions in literature.

2. Nine hours in English or American Literature prior to 1900. This requirement may be met by courses listed in this catalog numbered Engl 341 through Engl 362; Engl 370, 371, 381, 382, 444, and 457; and sometimes Engl 441 and 442, when these courses focus on subjects prior to 1900. This requirement gives the student the opportunity to study literature written in the English language in a period significantly different from his own, and by contrasting the past and the present to increase his appreciation of both.

The Writing Program

For students who wish to prepare for a career in fictive or non-fictive writing, the English Department offers a major program with special emphasis in writing. In addition to general requirements for a B.A. degree, students who wish to pursue this program must complete 30 hours of course work beyond sophomore English, with at least 12 credits in the following courses: Engl 309, 310, 396, 403, 467, 469.

In choosing the additional hours in English required for the literature or writing programs, each student, working with an adviser, shall make a judicious selection of courses which will foster a broad liberal education and prepare the student for graduate education or employment.

English in a Double Major

For students who wish a double major, the English Department accepts certain interdisciplinary courses for credit towards the English major. Students wishing to design their own double majors are encouraged to discuss their plans with their English advisers and the Chairman of the Department of English.
Sample Schedule for English Majors

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Fifth Semester</th>
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<tbody>
<tr>
<td>Engl 101</td>
<td>Advanced English courses 9</td>
</tr>
<tr>
<td>Natural science</td>
<td>Non-Western courses 3</td>
</tr>
<tr>
<td>Econ., govt., geog., or hist.</td>
<td>Elective 3</td>
</tr>
<tr>
<td>Foreign language</td>
<td>15</td>
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<td></td>
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<tr>
<td>Second Semester</td>
<td>Sixth Semester</td>
</tr>
<tr>
<td>Engl 102</td>
<td>Advanced English courses 6</td>
</tr>
<tr>
<td>Natural science</td>
<td>Non-Western courses 3</td>
</tr>
<tr>
<td>Econ., govt., geog., or hist.</td>
<td>Art, dance, dramatic arts, film or music 3</td>
</tr>
<tr>
<td>Foreign language</td>
<td>Elective 3</td>
</tr>
<tr>
<td></td>
<td>15</td>
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<tr>
<td>Third Semester</td>
<td>Seventh Semester</td>
</tr>
<tr>
<td>Engl 251 (or 203 or 205)</td>
<td>Advanced English courses 6</td>
</tr>
<tr>
<td>Foreign language</td>
<td>Electives 10</td>
</tr>
<tr>
<td>Logic or mathematics</td>
<td>16</td>
</tr>
<tr>
<td>Anth., psc., or soci.</td>
<td>3</td>
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<tr>
<td>Speech</td>
<td>3</td>
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<tr>
<td></td>
<td>16</td>
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<tr>
<td>Fourth Semester</td>
<td>Eighth Semester</td>
</tr>
<tr>
<td>Engl 252 (or 204 or 206)</td>
<td>Advanced English courses 9</td>
</tr>
<tr>
<td>Anth., psc., or soci.</td>
<td>Electives 6</td>
</tr>
<tr>
<td>Philosophy, or religion</td>
<td>15</td>
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<tr>
<td>Electives</td>
<td>15</td>
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</table>

English Courses

Engl 101 is the usual prerequisite for Engl 102. With the approval of the Department, international students may use Engl 100 instead of Engl 101 as the prerequisite for Engl 102. Students may not receive credit for both Engl 100 and Engl 101.

Engl 100 Composition for Foreign Students (4)

A course for non-native speakers of English with limited proficiency in the language. Principles and practice of expository writing, with intensive drill in grammar, vocabulary, and "principles of organization. A student must attain a minimum grade of "C" in order to have this course fulfill degree requirements.

101, 102 Composition and Introduction to Literature (3, 3)

Prerequisite: Engl 101 (or 100) is a prerequisite to Engl 102. Expository writing, ranging from paragraphs to essays of some length and complexity. Study of the logical, rhetorical, and linguistic structure of expository prose. The methods and conventions of preparing research papers, and introduction to analysis and appreciation of major literary types. A student must attain a minimum grade of "C" in order to have these courses fulfill degree requirements.

Six credit hours of English in 100-level courses are prerequisites for all 200-level courses. Six credit hours of English in 100-level courses and six credit hours of English in 200-level courses are prerequisites for all English 300 and 400-level courses with these exceptions: (1) Students who have completed six credit hours of English composition may enroll in Engl 310. (2) Non-degree students who have completed six credit hours of English composition may enroll in courses numbered 301-309.

The Department of English offers Engl 301-309 to encourage the study of literature, film and writing by students not interested primarily in becoming English majors. These courses may be taken more than once for credit with the permission of the Department. English majors may take up to six hours in the sequence for credit towards the major only with the permission of their advisers.

203, 204 Western Literary Masterworks (3, 3)

Great works of Western civilization. 203: writers such as Homer, Sophocles, Euripides, Dante, Cervantes, and Flaubert; 204: writers such as Dostoievski, Tolstoy, Mann, Camus, Malraux, Ionesco, and Beckett. All readings in modern English.

205, 206 Readings in English and American Literature (3, 3)

English and American literature by types. Engl 205 focuses on selected English and American poetry and drama by such writers as Marlowe, Shakespeare, Shaw, O'Neill, Albee, Donne, Keats, Whitman, Frost, Eliot and Auden. Engl 206 focuses on selected English and American novels, short stories, and essays by such writers as Lawrence, Hemingway, Faulkner, Melville, Crane, E. Bronn, Fitzgerald and Pound.

251, 252 Survey of English Literature (3, 3)

Major literary movements and works of English literature, focusing on the writings of such authors as Chaucer, Spenser, Shakespeare, Donne, Milton, Pope, Johnson, Wordsworth, Keats, Browning, Yeats, Eliot and Joyce.

301 Film (3)

American and foreign films selected by type, period, or director, with the emphasis varying from year to year. Emphasis may be placed on such directors as Griffith, Welles, Penn, Hitchcock, Bergman, Truffaut, and Antonioni. Types could include the Western, the epic, the thriller, the situation comedy, the documentary, and the experimental short. Required viewings, student discussion and written critiques.

303 Significant Authors (3)

One or two major authors, such as Shakespeare, Dickens and Hardy, or Tolkein and C. S. Lewis, as announced.

307, 308 Special Topics in Literature (3, 3)

A study of literature by topics, such as women in literature, literature of the frontier, literature and psychology, science fiction, and literature of the avant garde. The topic will change each time the course is offered.

309 Independent Writing (3)

Practice in analyzing and writing such expository forms as the essay, memo, article, and technical and scientific reports, depending upon the needs of the individual student. (Not a remedial course.)

310 Technical and Report Writing (3)

Study and practice of technical and report writing. Intended for students in any major who are preparing for careers in government, industry, business or academic administration.

313 Critical Approaches to Literature (3)

Study in depth of a selected approach to literary criticism, as announced, with exercises in critical analysis. Examples: new criticism, structuralism, psychoanalysis, Marxism. This course may be repeated with permission of the Department.

320 Myth and Symbol in Western Literature (3)

A study of the traditional myths and archetypes of the past which have affected the development of Western literature. Sources such as the Bible, classical mythology, and primitive myths and rituals will be studied as well as literature consciously or unconsciously influenced by mythic structures. Some myth theory will be included.

330 American Folklore (3)

A study of folklore with emphasis on verbal and non-verbal forms in their distinctively American configuration. Consideration will be given to the use of folk elements in American literature by such authors as Twain and Faulkner.

331 Literary Approaches to Popular Culture (3)

A literary approach to the study of popular culture. Emphasis will be placed on popular fiction and the adaptation of popular prose genres (for example, mysteries, science fiction) to media which have strong verbal and visual elements. The relationship between verbal and non-verbal elements of such media as film, comics and radio will be included in the course.

341 Chaucer (3)

The major works of Chaucer, with emphasis on The Canterbury Tales.

342 Literature of the Middle Ages (3)

Selected English narrative, dramatic, and homiletic literature written between 1300 and 1500 A.D., exclusive of Chaucer.

345 English Poetry and Prose of the Sixteenth Century (3)

Poetry and prose of the early Renaissance in England.

346 Spenser (3)

A study of the major portion of the poetry of Edmund Spenser, with central emphasis upon The Faerie Queene.

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351, 352 Shakespeare (3, 3)  
Twentieth selected plays. First semester emphasizes histories and comedies; second semester, tragedies and romances.

353 English Renaissance Drama (3)  
Major dramas and dramatists of the English Renaissance, exclusive of Shakespeare.

354 English Poetry and Prose of the Seventeenth Century (3)  
English poetry and prose from 1603 to 1688, excluding Milton.

355 Milton (3)  
Milton's major poetic works, with emphasis on Paradise Lost.

356 Restoration and Eighteenth-Century Drama (3)  
Restoration comedy of manners, sentimental comedy, neo-classical and bourgeois tragedy. Some emphasis on theories of drama, on staging, and on parallel developments in opera. Such writers as Wycherley, Farquhar, Etheredge, Congreve, Dryden, Addison, Gay, Fielding, Goldsmith, and Sheridan are studied.

357 The Augustan Age (3)  
The development of English literature from the late seventeenth century to the middle of the eighteenth century, with emphasis on works of Dryden, Swift, and Pope.

358 The Age of Johnson (3)  
The development of English literature of the late eighteenth century; readings from Dr. Johnson and his contemporaries with attention to the pre-Romantics.

361 English Poetry of the Romantic Period (3)  

362 English Poetry of the Victorian Period (3)  
Works of Tennyson, Browning, Arnold, Hopkins, Swinburne, and the Pre-Raphaelites.

365 English Poetry of the Twentieth Century (3)  
English poetry from 1900 to the present, with an emphasis on the work of Hardy, Yeats, Lawrence, Graves, Auden, Thomas, and Hughes. A work of fiction which employs poetic techniques, such as Joyce's Ulysses, may also be studied.

370 English Novel of the Eighteenth Century (3)  
The English novel from its beginnings through the turn of the nineteenth century. Works by such authors as Defoe, Richardson, Fielding, Sterne, Smollett, Scott, and Austen will be studied.

371 English Novel of the Nineteenth Century (3)  
The English novel of the nineteenth century. Works by such authors as Dickens, Thackeray, E. Bronte, Eliot, Trollope, Meredith, and Hardy will be studied.

372 English Novel of the Twentieth Century (3)  
The English novel from the beginning of the twentieth century to the present. Works by such authors as Conrad, Ford, Bennett, Forster, Lawrence, Joyce, Woolf, Huxley, Greene, Orwell, Beckett, Lessing, and Murdoch will be studied.

373 Literary Modes (3)  
The theory and practice of such modes as tragedy, comedy, tragi-comedy, romance, and satire, considered in separate semesters and drawn from a variety of periods ranging from Biblical times to the present, with examples from drama, poetry, and fiction. This course may be repeated with permission of the Department.

374 English and Irish Drama of the Twentieth Century (3)  
English and Irish drama from Yeats to Pinter. Plays by such authors as O'Casey, Synge, Eliot, Frye, Osborne, Wesker, Behan, Delaney, and Pinter will be studied.

375, 376 Contemporary Drama (3, 3)  
Representative plays of contemporary dramatists of Europe and America, with emphasis on dramatic styles such as realism, expressionism, and existentialism. Among the authors studied are Ibsen, Strindberg, Hauptmann, Shaw, O'Neill, O'Casey, Sartre, Lorca, Ionesco, and Brecht.

377, 378 Selected Continental Novels in Translation (3, 3)  
Selected European novels in translation. Engle 377 concerns the continental novel from the eighteenth century to the end of the nineteenth century, and includes works of such writers as Balzac, Gogol, Stendhal, Turgenev, Flaubert, Dostoevsky, Tolstoy, and Galdos. Engle 378 deals with the continental novel from the beginning of the twentieth century to the present and includes such writers as Proust, Mann, Gide, Silone, Kafka, Sartre, Cela, Moravia, and Grass. Attention will be given to the influence of this literature on the novel in English. (Offered in cooperation with the Department of Foreign Languages.)

380 Recent American Fiction (3)  
A study of major American short story writers and novelists from World War II to the present, with emphasis on such writers as Mailer, Barth, Hawkes, Cheever, Oates, Gass, Kozinski, Pynchon, Nabokov, Bellow, Updike, and O'Connor.

381 Colonial and Federalist American Literature (3)  
The works of the first 200 years of American literature, including Edwards, Franklin, Irving, Cooper, and Bryant.

382 Literature of the American Renaissance (3)  
The major writers of the American Renaissance (1830-1865), with emphasis on the works of Emerson, Thoreau, Hawthorne, Melville, Whitman, and Poe.

383 American Jewish Writers (3)  
The study of major twentieth century American Jewish writers, including works by such authors as Roth, Singer, Friedman, Malamud, and Bellow.

384 Literature of the Modern South: 1920 to the Present (3)  
Novels, short stories, drama, poetry, and essays of the American South, from post-World War I to recent times; the work of Southern writers, including Faulkner, Warren, Tate, Wright, Porter, McCullers, Styron, and O'Connor.

385 American Poetry of the Twentieth Century (3)  
Major American poets of this century, with emphasis on the work of Robinson, Frost, Stevens, Williams, Pound, Crane, Eliot, and Lowell. A work of fiction which employs poetic techniques, such as Faulkner's The Sound and The Fury, may also be studied.

386 Literature of Black America (3)  
Significant works of poetry, fiction, drama, and autobiography written by American black writers in the twentieth century, reflecting the black experience. Works by such authors as Toomer, Hughes, Wright, Brooks, Ellison, Baraka, and Bullins will be studied.

387 Development of the American Novel to 1914 (3)  
Major American novels of the pre-World War I period with emphasis on the work of Brown, Cooper, Hawthorne, Melville, Twain, Howells, James, Crane, Dreiser, Norris and others.

388 Development of the American Novel since 1914 (3)  
The American novel from the end of World War I to the present; the course includes the work of such authors as Fitzgerald, Hemingway, Faulkner, Dos Passos, Wolfe, Bellow, and Nabokov.

389 American Drama of the Twentieth Century (3)  
American drama of the twentieth century, with special attention to the plays of Eugene O'Neill, Thornton Wilder, Arthur Miller, Tennessee Williams, and Edward Albee.

390 Recent American Poetry (3)  
Major American poets from World War II to the present, with emphasis on the work of such poets as Roethke, Wilbur, Dickey, Lowell, Merwin, Kinneill, and Ammons.

391 General Linguistics (3)  
Introduction to general linguistics: phonics, phonemics, morphology, and syntax.

392 History of the English Language (3)  
Introduction on historical principles to the development of the English language, including study of the Indo-European family of languages, Old English, Middle English, foreign influences on English, and the American dialect.

393 Selections from the Literatures of the Indian Continent (3)  
Selected literary masterpieces in translation from the ancient and modern literatures of the Indian continent, including romances, plays, and poetry from Sanskrit, Hindi, Tamil, Iru, and other literatures. (Course credit accepted for the BA non-Western proviso but not in the English major.)

394 Japanese Literature in Translation (3)  
Selected literary masterpieces in translation from ancient and modern Japan, including a court romance (The Tale of Genji) essays (The Pillow Book), classical poetry, noh and Bunraku plays, haiku poetry, and modern fiction. Review of the genres and traditions represented by these masterpieces. (Course credit accepted for the BA non-Western proviso but not in the English major.)

395 Chinese Literature in Translation (3)  
Selected literary masterpieces in translation, including the Confucian classics, ancient songs and poems, T'ang and Sung poetry and prose, Yuan and Ming plays, novels and short stories. (Course credit accepted for the BA non-western proviso but not in the English major.)

396 Introduction to Creative Writing (3)  
Introduction to the theory and practice of writing fiction, poetry, and drama.

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403 Theory and Practice of Editing (3)
Prerequisites: Six hours of English courses numbered above 300, including one advanced writing course-309, 310, 396, 467 or permission of the Department. A course in revising, editing, and preparing specialized writing for printing. Emphasis on methods of achieving clarity, accuracy and completeness. Lecture and discussion on editing and printing techniques; practical exercise in revision, layout and production.

431 Medieval Intellectual Topics (3)
This course is identical to Hist 431 and Fr/En 431 and may be taken for credit by English or History or European Studies Majors. An examination of a selected topic in the intellectual history of the Middle Ages. The specific topic may vary from year to year. The primary emphasis will be literary or historical, depending on the discipline of the instructor. Relevant material drawn from philosophy, theology, and art may also be considered.

441, 442 Studies in English and American Literary Topics, Periods or Genres (3, 3)
Study in depth of a selected literary period, period, or genre, as announced. These courses may be repeated with permission of the Department.

444 Selected Major English and American Writers Before 1900 (3)
An intensive study of one or two major authors, such as Donne and Swift, or Melville and Twain, as announced. This course may be repeated with permission of the Department.

446 Selected Major English and American Writers of the Twentieth Century (3)
An intensive study of one or two major twentieth century writers, such as Joyce, Faulkner, or Eliot and Yeats as announced. This course may be repeated with permission of the Department.

451 Literary Criticism (3)
Studies of major critical theories and techniques with emphasis on the twentieth century.

455 Literary Style (3)
The theory and practical analysis of English literary style. Several methodologies, including the impressionistic, the rhetorical, and the linguistic, will be examined, and then applied to the language of various literary texts, including essays, poems, and novels.

457 Old English
A study of the Old English language, including its phonology, morphology, syntax, and lexicon aimed at preparing students to read Anglo-Saxon literature in the original form. The study of the language will be accompanied by reading from Anglo-Saxon prose and poetry of the seventh through the eleventh centuries. Selections from The Anglo-Saxon Chronicle, Beowulf, the Homily of the Fates, The Legend of St. Andrew, and other prose works, as well as such verse as The Dream of the Rood, The Seafarer, and Judith will be read and translated.

467 Advanced Expository Writing (3)
Theory and practice of advanced expository writing; practice in analyzing and writing essays, articles, and other expository forms.

469 Seminar in Creative Writing (3)
Prerequisite: Permission of the instructor. Intensive practice in the technique of creative writing and study of the nature of the imagination in the creative process. Normally the course will concentrate on one literary type each time it is offered (for example, short story, poetry, play-and film-writing) and the concentration will be announced before pre-registration. Intended for students already writing original fiction, poetry, or drama. (By permission of the instructor, the course may be taken a second time for credit. The additional three hours, however, may not be counted toward the requirements for the English major.)

470 Independent Study (1-3)
Prerequisite: Permission of Department and instructor. Open only to English majors with senior standing and fifteen credit hours in 300 and 400 level English courses. Intensive study of a particular author, genre, period or critical or theoretical problem in literature or linguistics, to be conducted by an individual student in close consultation with an instructor. The student will produce at least one substantial piece of written work during the semester on the findings of his research. (By permission of the Department, the course may be taken a second time for a total maximum of six hours of credit.)

480 Applied Linguistics (3)
Prerequisite: Engl 391 or permission of the instructor. A study of the applications of linguistic science to the teaching of English language and literature. Specific attention will be given to the linguistic foundations of teaching English as a second language, the findings of linguistics with regard to composition instruction, and the ways in which linguistics can support the teaching of literature and literary style.

482/Psy 482 Psycholinguistics (3)
A study of the mental and psychological aspects of human language, including aphasia, association, autism, language acquisition, verbal concept formation, and perception.

Related Courses
For Children's Literature (LAC 305) see the listing of the Department of General Studies. This course does not count for credit in English.

For Classicism and Romanticism (EuSt 350) see the listings of the European Studies Program. This course does not count for credit in English.

Journalism Courses
201 Introduction to Journalism (3)
Principles of and practice in news writing, editing, and layout. Includes a review of the history of American journalism.

202 Introduction to News Editing (3)
Prerequisite: Jour 201. Techniques of copy editing, including copy preparation, headline writing, news judging, and newspaper make-up. Designed to introduce students to working on newspaper copy desks, but has applications for anyone preparing copy for publication.

210 Yearbook Laboratory (1)
Prerequisite or corequisite: Jour 201. Practical experience at writing and editing for the student yearbook, coordinated with the instruction in Journalism 201. May be taken three semesters for a total of three credit hours.

211 Newspaper Laboratory (1)
Prerequisite or corequisite: Jour 201. Practical experience at writing and editing for the student newspaper, coordinated with the instruction in Jour 201. May be taken three semesters for a total of three credit hours.

212 Literary Magazine (1)
Supervised practical experience in editing, make-up, and reviewing for the University's literary magazine. Two hours per week. May be taken three semesters for a total of three credit hours.
Requirements for the Major in Art

The major program in art prepares students for graduate study in studio art or art history, as well as for research and professional work in art.

Studio Art

In addition to general requirements for a Bachelor of Arts degree, studio art majors must complete a minimum of 42 hours in art. The following academic requirements will be necessary:

<table>
<thead>
<tr>
<th>Major in Studio Art</th>
<th>Semester Hours</th>
</tr>
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<tbody>
<tr>
<td>English and Literature</td>
<td>12</td>
</tr>
<tr>
<td>Art</td>
<td>42</td>
</tr>
<tr>
<td>Introductory Drawing</td>
<td>6</td>
</tr>
<tr>
<td>Introductory Painting</td>
<td>6</td>
</tr>
<tr>
<td>Introductory Sculpture</td>
<td>6</td>
</tr>
<tr>
<td>Fundamentals of Design</td>
<td>3</td>
</tr>
<tr>
<td>Intermediate Painting</td>
<td>3</td>
</tr>
<tr>
<td>Intermediate Sculpture</td>
<td>3</td>
</tr>
<tr>
<td>Intermediate Art Studio (Sculpture or Painting)</td>
<td>3</td>
</tr>
<tr>
<td>Intermediate Drawing</td>
<td>3</td>
</tr>
<tr>
<td>Survey of Western Art</td>
<td>6</td>
</tr>
<tr>
<td>Twentieth-Century Art</td>
<td>3</td>
</tr>
</tbody>
</table>

| Foreign Language                         | 12             |
| Social Science                            | 12             |
| Natural Science                           | 8              |
| Non-Western Culture                      | 6              |
| Mathematics or Logic                      | 3              |
| Oral Communication                        | 3              |
| Philosophy or Religion                    | 3              |
| Electives                                | 19             |
| Total                                    | 120            |

Art History

In addition to the general degree requirements for a Bachelor of Arts degree, art history majors must complete a minimum of 42 hours in art. The following academic requirements will be necessary:

<table>
<thead>
<tr>
<th>Major in Art History</th>
<th>Semester Hours</th>
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</thead>
<tbody>
<tr>
<td>English and Literature</td>
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<td>Art</td>
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<tr>
<td>Introductory Drawing</td>
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</tr>
<tr>
<td>Fundamentals of Design</td>
<td>3</td>
</tr>
<tr>
<td>Survey of Western Art</td>
<td>6</td>
</tr>
<tr>
<td>Nineteenth-Century Art</td>
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</tr>
<tr>
<td>Twentieth-Century Art</td>
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<tr>
<td>Classical Art</td>
<td>6</td>
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<tr>
<td>Medieval Art</td>
<td>3</td>
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<tr>
<td>Early Renaissance Art</td>
<td>3</td>
</tr>
<tr>
<td>Renaissance Art</td>
<td>3</td>
</tr>
<tr>
<td>Baroque Art</td>
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<td>Mathematics or Logic</td>
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<td>Philosophy or Religion</td>
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Art Courses

**101 Art Appreciation (3)**

For non-art majors only. A general introduction to the principles of aesthetics in art through a study of painting, sculpture and architecture; chronological, prehistoric times to the present, or ideational approach varying with the instructor.

**103, 104 Introductory Drawing (3, 3)**

Foundation course in representational drawing and expressive pictorial design. Emphasis upon the figure and basic principles of one and two point perspective. Six hours per week.
## Sample Schedule for Studio Art Majors

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<thead>
<tr>
<th>First Semester</th>
<th>Fifth Semester</th>
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</thead>
<tbody>
<tr>
<td>English</td>
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<tr>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Foreign language</td>
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</tr>
<tr>
<td>4</td>
<td>3</td>
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<tr>
<td>Fundamentals of Design</td>
<td>Intermediate Sculpture</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Introductory Drawing</td>
<td>Natural Science</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Survey of Western Art</td>
<td>Intermediate Painting</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
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<td><strong>16</strong></td>
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<tr>
<th>Second Semester</th>
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<tr>
<td>English</td>
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<td>Intermediate Art Studio</td>
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<tr>
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<td>Introductory Drawing</td>
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<td>3</td>
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<td>Non-Western Culture</td>
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<table>
<thead>
<tr>
<th>Third Semester</th>
<th>Seventh Semester</th>
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<tr>
<td>Literature</td>
<td>Elective or Advanced</td>
</tr>
<tr>
<td>3</td>
<td>Studio Art</td>
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<td>Foreign language</td>
<td>Social Science</td>
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<tr>
<td>4</td>
<td>3</td>
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<td>Math or Logic</td>
<td>Electives</td>
</tr>
<tr>
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<td>9</td>
</tr>
<tr>
<td>Introductory Painting</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Introductory Sculpture</td>
<td></td>
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<tr>
<td>3</td>
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<td><strong>16</strong></td>
<td><strong>14-16</strong></td>
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<table>
<thead>
<tr>
<th>Fourth Semester</th>
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<td>Literature</td>
<td>Elective or Advanced</td>
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<td>Studio Art</td>
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<tr>
<td>Elective</td>
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<td>Social Science</td>
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<tr>
<td>3</td>
<td>3</td>
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<tr>
<td>Introductory Painting</td>
<td>Philosophy or Religion</td>
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<tr>
<td>3</td>
<td>3</td>
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<tr>
<td>Non-Western Culture</td>
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<tr>
<td><strong>15</strong></td>
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## Sample Schedule for Art History Majors

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<thead>
<tr>
<th>First Semester</th>
<th>Fifth Semester</th>
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</thead>
<tbody>
<tr>
<td>English</td>
<td>Literature</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>Non-Western Culture</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Fundamentals of Design</td>
<td>Social Science</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Introductory Drawing</td>
<td>Classical Art</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Survey of Western Art</td>
<td>Medieval Art</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>16</strong></td>
<td><strong>16</strong></td>
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<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Sixth Semester</th>
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</thead>
<tbody>
<tr>
<td>English</td>
<td>Elective</td>
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<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>Social Science</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Math or Logic</td>
<td>Classical Art</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Introductory Drawing</td>
<td>Early Renaissance Art</td>
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<tr>
<td>3</td>
<td>3</td>
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<tr>
<td>Survey of Western Art</td>
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<tr>
<td>3</td>
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<tr>
<td><strong>16</strong></td>
<td><strong>13</strong></td>
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</table>

<table>
<thead>
<tr>
<th>Third Semester</th>
<th>Seventh Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Literature</td>
<td>Senior Seminar in Art</td>
</tr>
<tr>
<td>3</td>
<td>History</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>Renaissance Art</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Nineteenth-Century Art</td>
<td>Philosophy or Religion</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Hist 101</td>
<td>Electives</td>
</tr>
<tr>
<td>Natural Science</td>
<td>6</td>
</tr>
<tr>
<td><strong>17</strong></td>
<td><strong>15</strong></td>
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</table>

<table>
<thead>
<tr>
<th>Fourth Semester</th>
<th>Eighth Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electives</td>
<td>Baroque Art</td>
</tr>
<tr>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Natural Science</td>
<td>Electives</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Twentieth-Century Art</td>
<td>Oral Communication</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Hist 102</td>
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<tr>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>16</strong></td>
<td><strong>12</strong></td>
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</tbody>
</table>

105 **Fundamentals of Design (3)**
Conceptual approach to art-making through two and three dimensions. Knowledge of basic art elements gained through problems which employ a variety of media. Six hours per week.

201, 202 **Introductory Painting (3, 3)**
A basic course in the fundamentals of painting. Structural and conceptual approach in various media, including oil, acrylic and tempera. Six hours per week.

203, 204 **Intermediate Drawing (3, 3)**
Prerequisites: Art 103 and 104 or permission of instructor. An intermediate course in drawing. Emphasis upon advanced exploration of techniques and approaches. Original compositions from the figure and nature supplemented by problems of personal and expressive drawing. Six hours per week.

215, 216 **Introductory Sculpture (3, 3)**
A basic course in the fundamentals of realizing volumes, masses and planes based on the use of clay and molding plaster. Techniques of subtraction, addition and basic manipulation processes will be explored. Six hours per week.

221, 222 **Survey of Western Art (3, 3)**
A survey of Western art as expressed through architecture, sculpture and painting. First semester, prehistoric to Renaissance; second semester, Renaissance to the present.

223 **Introduction to Comparative Arts (3)**
An interdisciplinary approach to various themes within the history of Western art.

224 **Problems in Comparative Arts (3)**
Important aesthetic questions concerning the nature of subject matter, formal analysis and modes of operation within works of art and music are discussed.

301, 302 **Intermediate Painting (3, 3)**
Prerequisite: Art 103, 104, 105, 201, 202 or permission of instructor. A continuing study of painting in the structural or formal tradition. Individual approaches to subjects, objects and painting situations encouraged. Choice of media. Six hours per week.

315, 316 **Intermediate Sculpture (3, 3)**
Prerequisites: Art 103, 105, 215, 216 or permission of instructor. Continued exploration of sculptural problems with emphasis on employing different techniques and materials to reach formal solutions. The student will be shown the potentiality of a number of methods, e.g. welding, wood construction, and their specific qualities and range of possibilities. Six hours per week.

320 **History of Ancient Near Eastern Art (3)**
Prerequisite: Sophomore standing. Art of the Near East, Egypt, and the Aegean.

321 **History of Classical Art (3)**
Prerequisite: Sophomore standing. A study of Greek architecture, sculpture and painting.

322 **History of Classical Art (3)**
Prerequisite: Sophomore standing. A study of Roman architecture, sculpture and painting.

325 **Medieval Art (3)**
Prerequisite: Sophomore standing. Architecture, sculpture and painting in the Early Medieval, Romanesque and Gothic periods.

326 **Early Renaissance Art (3)**
Prerequisite: Sophomore standing. Architecture, sculpture and painting in the Early Renaissance period.

327 **History of Renaissance Art (3)**
Prerequisite: Sophomore standing. Study of Renaissance principles of architecture, sculpture and painting and of their development and transformation through Mannerism.

328 **History of Baroque Art (3)**
Prerequisite: Sophomore standing. Study of the Baroque principles of architecture, sculpture and painting, and of their development and transformation through the Rococo.

330 **History of American Art (3)**
Prerequisites: Art 101 or 221, 222. A history of the architecture, painting and sculpture produced in the United States from the Colonial period until the present day, emphasizing the historical nature of the objects studied and their relation to European prototypes.

331 **History of Nineteenth-Century Art (3)**
Prerequisite: Sophomore standing. A study of painting, sculpture and architecture from the Neoclassical period to 1900.

332 **History of Twentieth-Century Art (3)**
Prerequisite: Sophomore standing. A study of painting, sculpture and architecture from 1900 to the present day.
Dance Courses

101 Dance Appreciation (3)
An introduction to dance as a cultural art form. The elements of dance are examined separately and as combined in various dance forms. A brief survey of the basic forms leads into a more intensive study of movement and the new dance. Criticism and evaluation to be required.

125 Beginning Modern Dance (1)
This course is designed to develop in the inexperienced student knowledge, skills, and an appreciation of modern dance through the presentation of fundamental techniques and creative movement experiences. This course is identical to PhEd 126 Beginning Modern Dance (1).

126 Beginning Intermediate Modern Dance (1)
Prerequisite: Danc 125 or permission of instructor. This course is designed to further develop the knowledge, skills, and appreciation of modern dance through the continued exploration of techniques, aesthetics, and creativity. This course is identical to PhEd 126 Beginning Intermediate Modern Dance (1).

131 Beginning Jazz Techniques (1, 1)
An exploration into the mechanics of movement in the jazz style of dance. Emphasis on the development of techniques for jazz training. May be taken two times for credit.

150 Dance Improvisation (3)
An exploration into the creation of spontaneous movement experiences. Emphasis is placed upon encouraging freedom of self-expression and creative awareness.

224 Intermediate Modern Dance (1, 1, 1, 1)
Prerequisite: Danc 126 or permission of instructor. Exploration of movement and motion for the student wishing to further develop his or her technical ability in dance. Emphasis is placed on increasing one's ability with regard to technical training and performing. This course may be taken for credit four times.

231 Intermediate Jazz Technique (1, 1)
Prerequisite: Danc 131 or permission of the instructor. Continuation in the study of the mechanics of movement in the jazz style of dance. May be taken two times for credit.

251 Dance Composition I (3)
Prerequisite: Danc 125 or permission of instructor. Learning and understanding the basic principles for composing movement for dance. Emphasis is placed on the construction of simple compositional forms in dance as they apply to the solo performer.

252 Dance Composition II (3)
Prerequisite: Danc 251 or permission of instructor. An exploration into the elements of complex compositional forms in dance as they apply to group forms. Experience in composing and performing duets, trios, quartets, and mass pieces.

327 Advanced Modern Dance (1, 1, 1, 1, 1, 1)
Prerequisite: Danc 224 or permission of instructor. This course seeks to provide the advanced dance student the opportunity for continued training. Stress and importance is placed upon the attainment of high quality technical and performing skills. This course may be taken eight times for credit.

360 Choreography (3)
Prerequisite: Danc 252 or permission of instructor. Students will engage in the process of learning to choreograph a dance work. Students will assume the responsibilities of: auditioning dancers, costuming, staging, lighting, selecting musical accompaniment, and composing and creating original movement material.

Dramatic Arts

Requirements for the Major in Dramatic Arts

The dramatic arts program prepares the major for graduate study in performance, technical theater, history and literature, as well as for professional activities and research.

In addition to general requirements for a Bachelor of Arts degree, dramatic arts majors must complete Introduction to Theater Experience plus a minimum of 42 hours in dramatic arts. All majors are expected to participate in productions. Required courses in dramatic arts are as follows:

- Introduction to Theater Experience (3)
- Beginning Modern Dance (1)
- Dance Improvisation (3)
- Acting I and II (1, 1, 1)
- Body Movement (1)
- Stagecraft I and II (1, 1, 1, 1)
- Theater History (6)
- Directing I (3)
- Field Experience (3)
- Dramatic Arts electives (3, 3, 3, 3)

Total: 42

After the required courses have been taken, each major will choose a concentration in: 1. Performance 2. Technical Theater, or 3. History and Literature.

The Performance Concentration is composed of Acting I, II, III; Body Movement; Beginning Modern Dance; Dance Improvisation; Directing I and II; Field Experience; participation in productions and related electives. The Technical Theater Concentration is composed of Stagecraft I, II, III; Costume and Makeup; Play Production Laboratory; Field Experience and related electives. The History and Literature Concentration is composed of Survey of the History of the Theater I and II; Theater of India and Southeast Asia; Theater of East Asia; Black Theater; Playwriting; Theories of Theater; Independent Study; and electives from courses in dramatic literature offered by the English Department: Shakespeare, English Renaissance Drama, Restoration and Eighteenth-Century Drama, English and Irish Drama of the Twentieth Century, Contemporary Drama, and American Drama of the Twentieth Century.
Sample Schedule for Dramatic Arts Majors

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<thead>
<tr>
<th>First Semester</th>
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<tbody>
<tr>
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<td>Dram 351</td>
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<td>Dramatic Arts Electives</td>
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<td>Dram 160</td>
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<tbody>
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<tr>
<th>Fourth Semester</th>
<th>Eighth Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Literature (of the drama)</td>
<td>Independent Study and</td>
</tr>
<tr>
<td>Danc 150</td>
<td>Dramatic Arts electives</td>
</tr>
<tr>
<td>Dram 231 or 325</td>
<td>15</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>15</td>
</tr>
</tbody>
</table>

Dramatic Arts Courses

160 Introduction to the Theater Experience (3)
Required for dramatic arts majors but is not counted in credits required for a major. An overview of the theater as the composite art of playwright, director, actor, designer and technician; and an examination of the interrelationship of play, physical theater, and audience through the study of representative plays of various periods of theater history.

220 Acting I (3)
Prerequisite: Permission of the instructor. Required for dramatic arts majors. A laboratory-performance course. Basic training in acting, emphasizing the actor’s use of voice and body in theater games, improvisation, non-scripted situations, and short scenes.

221 Body Movement (1)
Required for dramatic arts majors. A lecture-laboratory course. A development of the body movement emphasizing theatrical movement, theatrical dance, and mime. Three hours per week.

230 Stagecraft I (3)
Prerequisite: Dram 160 or permission of the instructor. Required for dramatic arts majors. A lecture-laboratory course in the fundamentals of stagecraft. Provides a knowledge of the tools and materials used in stage carpentry and scene painting and the application of proper techniques for the construction of stage scenery.

231 Stagecraft II (3)
Prerequisite: Dram 230 or permission of the instructor. Required for dramatic arts majors. A lecture-laboratory course in the fundamentals of stage lighting. Provides a working knowledge of the tools, materials, and techniques of stage lighting and the uses appropriate to each. Includes terminology, basic electricity, aesthetics and techniques.

245 Stage Costume and Makeup (3)
Prerequisite: Dram 160 or permission of the instructor. A lecture-laboratory course in the fundamentals of costume design and construction and the techniques of stage makeup. Two-thirds of the course will be given to costume, one-third to makeup. Stage costume will be studied in relationship to historical periods with experience in design, pattern cutting, and construction techniques.

251 Theater of India and Southeast Asia (3)
A study of the literature, theory, and practice of the theatrical genres of India and Southeast Asia.

252 Theater of East Asia (3)
A study of the literature, theory, and practice of the theatrical genres of China and Japan.

253 Black Theater in the United States (3)
A study of the history, sources, literature, themes, and techniques of the theater among Afro-Americans of the United States.

325 Acting II (3)
Prerequisites: Dram 220 or permission of instructor. Required for dramatic arts majors. An intermediate laboratory-performance course. Scene playing in a variety of genres and styles. Extensive work in subtext, characterization, ensemble playing, designed to extend the principles acquired in Acting I.

326 Acting III (3)
Prerequisites: Dram 220 and 230 or permission of instructor. An advanced laboratory-performance course given to acting theory and styles. Readings in Delsarte, Dolman, Stanislavski, Brecht, Artaud, Spolin, Chaikin, and Growtowski. The application of their theories to the playing of selected scenes. The development of a personal approach to acting through experimentation.

330 Stagecraft III (3)
Prerequisites: Dram 230 and 231 or permission of instructor. A lecture-laboratory course in basic scene design and scenographic drawing. Analysis of a script for visual interpretation; the devising of a stage setting that will accommodate movement, dramatic action, character and mood. The drafting of floor plan, builder’s and painter’s elevations. Experience with perspective drawing, color rendering, and scale models.

340 Play Production Laboratory (1-3, maximum credit 3)
Prerequisite: Permission of instructor. Practicum, Supervised production work on the level of crew head, assistant director, stage manager, designer, director, or producer. Eighty-five hours of production work per credit hour.

350 Playwriting (3)
Prerequisite: Twelve hours of English credit. A course in writing plays, with emphasis on the one-act play. May be repeated once for credit, but only three hours are accepted in the dramatic arts major.

351, 352 Survey of the History of the Theater (3, 3)
Prerequisite: Dram 160. Required for dramatic arts majors. A lecture course in the development of the theater from its beginnings to the present, with reference to theatrical movements, playwrights, directors, designers, actors and companies. Emphasis on the social, cultural, and philosophical factors shaping the theater in successive historical periods. Major emphasis will be on Western theater, but non-Western theaters will also be studied.

360 Directing I: Basic Concepts (3)
Prerequisites: Dram 160, 220, and 230 or permission of instructor. Required for dramatic arts majors. A lecture-laboratory course in the basic concepts and techniques of directing for the stage. Emphasis on close textual analysis of script for use of space, characterization, tempo and mood. Attention to reading ground plans, audition and rehearsal procedures, integrating production elements, and the historical evolution of the director. Practice in blocking, line reading, staging short scenes.

361 Directing II: Practicum (3)
Prerequisites: Dram 360 or permission of instructor. A laboratory course intended to complement Directing I, providing extensive application of the basic concepts and culminating in production for public performance.

400 Field Experience (3)
Prerequisite: Advanced standing, permission of the instructor and the dramatic arts faculty. An off-campus experience with educational, community, or professional theater to provide the student with an opportunity to apply classroom training, knowledge, skills and theory to an actual situation.

401 Theories of the Theater (3)
Theories of production from Aristotle to Brecht in the West, and Indian and Japanese theories from Asia.

410, 411 Independent Study (3)
Prerequisite: Open only to dramatic arts majors with senior standing and by special permission of the Chairman. Individual research or a creative project in close consultation with an instructor. A student may select from projects in performance, directing, technical theater and design, or theater history and criticism.

http://catalog.gmu.edu
Music

Requirements for the Major in Music

The two music degree programs prepare students for graduate work in music and music literature, for research and professional work in musical activities, and for state certification to teach music on the elementary and secondary levels. Entrance to all music degree programs is by audition only. Arrangements must be made in advance for an audition by contacting the Department of Fine and Performing Arts before the scheduled audition date. Auditions will normally be held during the following months: November, January, March, April, May, and August. Transfer students are required to take the following competency placement tests: Written Harmony, Keyboard Harmony, Sight Singing and Ear Training.

At the University, students seeking certification to teach music on the elementary and secondary levels must earn the Bachelor of Music degree. Music students applying for admission to the teacher education program must meet the requirements of the Teacher Education Committee and, in addition, must be recommended by the music faculty to the Teacher Education Committee. For students who have earned a baccalaureate degree and who are seeking state certification to teach music, this recommendation will normally be made contingent upon completion of the sequence of courses listed under "Bachelor of Music—Virginia Certification to Teach Music." It should be noted that the elective courses which occur under General Education, Music Electives, and Free Electives in the Bachelor of Music degree program are used in the "Virginia Certification to Teach Music" sequence to fulfill state certification requirements and the University's requirements.

Bachelor of Arts

In addition to general degree requirements for a Bachelor of Arts degree, music majors must complete a minimum of 42 hours in music. A total of 120 semester hours are required for the Bachelor of Arts degree in music.

Required courses in music are as follows:

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Harmony I, II, III, IV</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Keyboard Harmony</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sight Singing and Ear Training I, II</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Historical, Theoretical, and Analytical Study of Music</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Class Piano, I, II</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Major Instrument or Voice (Private Music Instruction)</td>
<td>8</td>
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<td>Ensemble</td>
<td>7</td>
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<td><strong>Total</strong></td>
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Sample Schedule for B.A. with Major in Music

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<th>Semester</th>
<th>Course</th>
<th>Credits</th>
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</thead>
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<td>Engi 101</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>FrLn 151</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Harmony I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Sight Singing and Ear Training I</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Class Piano I</td>
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</tr>
<tr>
<td></td>
<td>Major Instrument or Voice (Private Music Instruction)</td>
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<td>Ensemble</td>
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<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
</tr>
<tr>
<td>Second Semester</td>
<td>Engi 102</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>FrLn 152</td>
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<tr>
<td></td>
<td>Harmony II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Sight Singing and Ear Training II</td>
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<tr>
<td></td>
<td>Class Piano II</td>
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<tr>
<td></td>
<td>Major Instrument or Voice (Private Music Instruction)</td>
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<tr>
<td></td>
<td>Ensemble</td>
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</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
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</tr>
<tr>
<td>Third Semester</td>
<td>Engi 251</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Natural Science</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Harmony III</td>
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<td></td>
<td>Major Instrument or Voice (Private Music Instruction)</td>
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<td>Ensemble</td>
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<td>3</td>
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<td></td>
<td>Natural Science</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Survey of World Music</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Harmony IV</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Keyboard Harmony</td>
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</tr>
<tr>
<td></td>
<td>Major Instrument or Voice (Private Music Instruction)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Ensemble</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
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</tr>
<tr>
<td>Fifth Semester</td>
<td>Engi 251</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Mathematics or Logic</td>
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</tr>
<tr>
<td></td>
<td>Philosophy or Religion</td>
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<td>Historical, Theoretical, and Analytical Study of Music</td>
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<td></td>
<td>Major Instrument or Voice (Private Music Instruction)</td>
<td>1</td>
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<tr>
<td></td>
<td>Ensemble</td>
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<td><strong>Total</strong></td>
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<tr>
<td>Sixth Semester</td>
<td>Social Science</td>
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<tr>
<td></td>
<td>Fine Arts elective</td>
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<td></td>
<td>Historical, Theoretical, and Analytical Study of Music II</td>
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<td></td>
<td>Major Instrument or Voice (Private Music Instruction)</td>
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</tr>
<tr>
<td></td>
<td>Ensemble</td>
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<td><strong>Total</strong></td>
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<tr>
<td>Seventh Semester</td>
<td>Social Science</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Historical, Theoretical, and Analytical Study of Music III</td>
<td>3</td>
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<td></td>
<td>Major Instrument or Voice (Private Music Instruction)</td>
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<td>Ensemble</td>
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</tr>
<tr>
<td></td>
<td>Oral Communication</td>
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<tr>
<td></td>
<td>Electives</td>
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<tr>
<td></td>
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</tr>
<tr>
<td>Eighth Semester</td>
<td>Historical, Theoretical, and Analytical Study of Music IV</td>
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<tr>
<td></td>
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<td></td>
<td>Electives</td>
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<tr>
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<td><strong>Total</strong></td>
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</table>
Bachelor of Music

A total of 130 semester hours are required for the Bachelor of Music degree. The requirements by area are as follows:

<table>
<thead>
<tr>
<th>General Education</th>
<th>Required Hours</th>
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<tbody>
<tr>
<td>Engl 101 and 102</td>
<td>6</td>
</tr>
<tr>
<td>English Literature</td>
<td>6</td>
</tr>
<tr>
<td>Courses Outside the Fine and Performing Arts</td>
<td>12</td>
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<tr>
<td>Non-Music Courses</td>
<td>8</td>
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</tbody>
</table>

**Basic Musicianship**

<table>
<thead>
<tr>
<th>Required Areas</th>
<th>Required Hours</th>
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</thead>
<tbody>
<tr>
<td>Harmony I, II, III, IV</td>
<td>11</td>
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<tr>
<td>Keyboard Harmony</td>
<td>1</td>
</tr>
<tr>
<td>Sight Singing and Ear Training I, II</td>
<td>4</td>
</tr>
<tr>
<td>Survey of World Music</td>
<td>3</td>
</tr>
<tr>
<td>Historical, Theoretical, and Analytical Study of Music I, II, III, IV</td>
<td>12</td>
</tr>
<tr>
<td>Class Composition and Arranging I</td>
<td>3</td>
</tr>
<tr>
<td>General Conducting</td>
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<tr>
<td>Class Piano I, II</td>
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<tr>
<td>Major Instrument or Voice (Private Music Instruction)</td>
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**Music Electives**

<table>
<thead>
<tr>
<th>Required Hours</th>
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<tbody>
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**Free Electives**

<table>
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<tr>
<th>Required Hours</th>
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<td>22</td>
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<table>
<thead>
<tr>
<th>Total Required Hours</th>
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<tbody>
<tr>
<td>130</td>
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**Sample Schedule for Bachelor of Music**

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Required Hours</th>
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<tbody>
<tr>
<td>Engl 101</td>
<td>3</td>
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<tr>
<td>Foreign Language or Non-Music Elective</td>
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</tr>
<tr>
<td>Harmony I</td>
<td>3</td>
</tr>
<tr>
<td>Sight Singing and Ear Training I</td>
<td>2</td>
</tr>
<tr>
<td>Class Piano I</td>
<td>1</td>
</tr>
<tr>
<td>Major Instrument or Voice (Private Music Instruction)</td>
<td>2</td>
</tr>
<tr>
<td>Ensemble</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Required Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engl 102</td>
<td>3</td>
</tr>
<tr>
<td>Foreign Language or Non-Music Elective</td>
<td>4</td>
</tr>
<tr>
<td>Harmony II</td>
<td>3</td>
</tr>
<tr>
<td>Sight Singing and Ear Training II</td>
<td>2</td>
</tr>
<tr>
<td>Class Piano II</td>
<td>1</td>
</tr>
<tr>
<td>Major Instrument or Voice (Private Music Instruction)</td>
<td>2</td>
</tr>
<tr>
<td>Ensemble</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Semester</th>
<th>Required Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Literature</td>
<td>3</td>
</tr>
<tr>
<td>Harmony III</td>
<td>3</td>
</tr>
<tr>
<td>Major Instrument or Voice (Private Music Instruction)</td>
<td>1</td>
</tr>
<tr>
<td>Ensemble</td>
<td>1</td>
</tr>
<tr>
<td>Non-Fine and Performing Arts Elective</td>
<td>3</td>
</tr>
<tr>
<td>Free Electives</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fourth Semester</th>
<th>Required Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Literature</td>
<td>3</td>
</tr>
<tr>
<td>Harmony IV</td>
<td>2</td>
</tr>
<tr>
<td>Keyboard Harmony</td>
<td>1</td>
</tr>
<tr>
<td>Survey of World Music</td>
<td>3</td>
</tr>
<tr>
<td>Major Instrument or Voice (Private Music Instruction)</td>
<td>1</td>
</tr>
<tr>
<td>Ensemble</td>
<td>1</td>
</tr>
<tr>
<td>Non-Fine and Performing Arts Elective</td>
<td>3</td>
</tr>
<tr>
<td>Free Elective</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fifth Semester</th>
<th>Required Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Historical, Theoretical, and Analytical Study of Music I</td>
<td>3</td>
</tr>
<tr>
<td>Class Composition and Arranging I</td>
<td>3</td>
</tr>
<tr>
<td>General Conducting</td>
<td>2</td>
</tr>
<tr>
<td>Major Instrument or Voice (Private Music Instruction)</td>
<td>1</td>
</tr>
<tr>
<td>Ensemble</td>
<td>1</td>
</tr>
<tr>
<td>Music Elective</td>
<td>3</td>
</tr>
<tr>
<td>Non-Fine and Performing Arts Elective</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sixth Semester</th>
<th>Required Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Historical, Theoretical, and Analytical Study of Music II</td>
<td>3</td>
</tr>
<tr>
<td>Major Instrument or Voice (Private Music Instruction)</td>
<td>1</td>
</tr>
<tr>
<td>Ensemble</td>
<td>1</td>
</tr>
<tr>
<td>Music Electives</td>
<td>6</td>
</tr>
<tr>
<td>Non-Fine and Performing Arts Elective</td>
<td>3</td>
</tr>
<tr>
<td>Free Elective</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Seventh Semester</th>
<th>Required Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Historical, Theoretical, and Analytical Study of Music III</td>
<td>3</td>
</tr>
<tr>
<td>Major Instrument or Voice (Private Music Instruction)</td>
<td>2</td>
</tr>
<tr>
<td>Ensemble</td>
<td>1</td>
</tr>
<tr>
<td>Music Elective</td>
<td>3</td>
</tr>
<tr>
<td>Free Electives</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Eighth Semester</th>
<th>Required Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Historical, Theoretical, and Analytical Study of Music IV</td>
<td>3</td>
</tr>
<tr>
<td>Major Instrument or Voice (Private Music Instruction)</td>
<td>2</td>
</tr>
<tr>
<td>Ensemble</td>
<td>1</td>
</tr>
<tr>
<td>Music Electives</td>
<td>6</td>
</tr>
<tr>
<td>Free Electives</td>
<td>4</td>
</tr>
</tbody>
</table>

---

1 The first three hours in this sequence (Mus 335) may be applied toward the non-Western proviso under General Requirements. Mus 231 (Survey of World Music) also meets the non-Western requirement.

2 Courses from the College of Arts and Sciences only.

3 Students may choose electives from any or all of the following areas: Music History, Ethnomusicology, Theory, Composition, Performance, Music Education.
Bachelor of Music with Virginia Certification to Teach Music

A total of 140 semester hours are required for the Bachelor of Music with Virginia Certification to teach music.\(^1\) The requirements by area are:

**General Education**\(^2\)
- Engl 101 and 102
- English Literature
- Hst 121 or 122
- Social and/or Behavioral Science
- Laboratory Science

**Basic Musicianship**
- Harmony I, II, III, IV
- Keyboard Harmony
- Sight Singing and Ear Training I, II
- Survey of World Music
- Historical, Theoretical, and Analytical Study of Music I, II, III, IV
- Class Composition and Arranging I
- General Conducting
- Class Piano I, II
- Major Instrument or Voice (Private Music Instruction)
- Ensemble
- Laboratory Ensemble

**Music Electives**
- Laboratory Ensemble
- Class Instruments/Voice\(^3\)
- Choral or Instrumental Conducting
- Improvisation
- Music Methods\(^4\)

**Free Electives**
- Mathematics\(^2\)
- Human Growth and Development
- Foundations of Education
- Educational Psychology
- Heal 210
- Modern Dance
- Free Elective

**Additional Requirements**
- Student Teaching\(^5\)
- Physical Education\(^5\)

**Total** 140

---

1. The General Education courses and the Free Electives are derived from the state certification requirements as outlined under the Department of Education.
2. Courses from the College of Arts and Sciences only.
3. Vocal Emphasis (for students whose major instrument is voice, piano, organ, or guitar). The following two courses are required: Class Voice I and Class Guitar. Six credits must be chosen from the following: Class Strings: Violin and Viola; Class Strings: Cello and String Bass; Class Woodwinds: Flute and Clarinet; Class Woodwinds: Oboe and Bassoon; Class Brass: Class Percussion; Private Music Instruction (maximum of two credits; must be on an instrument(s) other than the major instrument).
4. Instrumental Emphasis (for students whose major instrument is a wind, percussion, or orchestral string instrument). The following courses are required: Class Voice I; Class Guitar; Class Strings: Violin and Viola; Class Strings: Cello and String Bass; Class Woodwinds: Flute and Clarinet; Class Woodwinds: Oboe and Bassoon; Class Brass: Class Percussion.
5. May not be used to satisfy the 130 credit hours required for the Bachelor of Music degree.

Music Courses

**100 Fundamentals of Music (3)**
Prerequisite: Student must be able to read either treble or bass clef and should have some proficiency on a musical instrument or in voice. The course involves a study of musical notation, interval and triad construction, the reading of treble and bass clefs, scale construction, rhythm, elementary sight singing and ear training, and the application of the above concepts at the keyboard. This course cannot be applied toward a degree in music.

**101 Music Appreciation I (3)**
For non-music majors only. An introduction to music appreciation through formal and aesthetic principles. The elements of music are examined separately and as combined in various musical forms. A brief survey of Medieval and Renaissance music leads into a more intensive study of music from the eighteenth century to the present, culminating in the discrimination of contrasting styles of music.

**102 Music Appreciation II (3)**
Prerequisite: Musi 101 or permission of instructor. For non-music majors only. A study of the development of the concerto, symphony, chamber music, suite, song, opera, and other large vocal forms. This development will be traced through the stylistic periods of music.

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Sample Schedule for Bachelor of Music

**First Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Engl 101</td>
<td>3</td>
</tr>
<tr>
<td>Social or Behavioral Science</td>
<td>3</td>
</tr>
<tr>
<td>Harmony I</td>
<td>3</td>
</tr>
<tr>
<td>Sight Singing and Ear Training I</td>
<td>2</td>
</tr>
<tr>
<td>Class Piano I</td>
<td>1</td>
</tr>
<tr>
<td>Major Instrument or Voice (Private Music Instruction)</td>
<td>2</td>
</tr>
<tr>
<td>Ensemble</td>
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**Second Semester**

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<tr>
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<td>Social or Behavioral Science</td>
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</tr>
<tr>
<td>Modern Dance</td>
<td>1</td>
</tr>
<tr>
<td>Harmony II</td>
<td>3</td>
</tr>
<tr>
<td>Sight Singing and Ear Training II</td>
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</tr>
<tr>
<td>Class Piano II</td>
<td>1</td>
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<tr>
<td>Major Instrument or Voice (Private Music Instruction)</td>
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<tr>
<td>Ensemble</td>
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<td><strong>Total</strong></td>
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**Third Semester**

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<tbody>
<tr>
<td>English Literature</td>
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<tr>
<td>Hst 121 or 122</td>
<td>3</td>
</tr>
<tr>
<td>Human Growth and Development</td>
<td>3</td>
</tr>
<tr>
<td>Harmony III</td>
<td>3</td>
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<tr>
<td>Class Instrument/Voice</td>
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<tr>
<td>Major Instrument or Voice (Private Music Instruction)</td>
<td>2</td>
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<tr>
<td>Ensemble</td>
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<tr>
<td><strong>Total</strong></td>
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**Fourth Semester**

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<th>Course</th>
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<tbody>
<tr>
<td>English Literature</td>
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<tr>
<td>Physical Education</td>
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<tr>
<td>Free Elective</td>
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<tr>
<td>Harmony IV</td>
<td>2</td>
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<tr>
<td>Keyboard Harmony</td>
<td>1</td>
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<tr>
<td>Survey of World Music</td>
<td>3</td>
</tr>
<tr>
<td>Class Instrument/Voice</td>
<td>1</td>
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<tr>
<td>Major Instrument or Voice (Private Music Instruction)</td>
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<tr>
<td>Ensemble</td>
<td>1</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>17</strong></td>
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113 Sight Singing and Ear Training I (2)
Prerequisite: Student must be able to read music and must have some proficiency on a musical instrument or in voice. The student will be taught to sing a line of music without the accompaniment of an instrument. Matching tones, major and minor scales, key signatures, intervals, rhythm. Treble, bass, alto and tenor clefs. Rhythmic and melodic dictation. Three hours per week.

114 Sight Singing and Ear Training II (2)
Prerequisite: Musi 113 or permission of instructor. A continuation of Sight Singing and Ear Training I. Modulation, various modes. Melodic and harmonic dictation. Three hours per week.

115 Harmony I (3)
Prerequisite: Student must be able to read music and must have some proficiency on a musical instrument or in voice. Music notation, scales, key signatures, intervals, chords, cadences, figured bass. Harmonizing soprano and bass lines in the eighteenth century chorale style.

116 Harmony II (3)
Prerequisite: Musi 115 or permission of instructor. First- and second-inversion chords, modulation, nonharmonic tones, figured bass, seventh chords. Analysis of Bach chorales; composition of four-part chorales in eighteenth-century style.

(With Virginia Certification to Teach Music)

Fifth Semester
Social or Behavioral Science 3
Foundations of Education 3
Historical, Theoretical, and Analytical Study of Music I 3
General Conducting 2
Improvisation 1
Class Instrument/Voice 1
Major Instrument or Voice (Private Music Instruction) 2
Ensemble 1
Laboratory Ensemble 1

Sixth Semester
Educational Psychology 3
Historical, Theoretical, and Analytical Study of Music II & IV 6
Choral or Instrumental Conducting 2
Class Instrument/Voice 1
Major Instrument or Voice (Private Music Instruction) 1
Ensemble 1
Laboratory Ensemble 1

Seventh Semester
Mathematics 3
Heal 210 3
Historical, Theoretical, and Analytical Study of Music III 3
Composition and Arranging I 3
Class Instrument/Voice 2
Major Instrument or Voice (Private Music Instruction) 1
Ensemble 1

Eighth Semester
Music Methods 6
Student Teaching 9

Suggested for Summer School
Laboratory Science 8
Mathematics 3

151 Class Strings: Violin and Viola (1)
Prerequisite: Non-music majors must have permission of instructor. A study of techniques of playing and teaching the violin and viola. A survey of instructional materials, and bow and instrument selection. Two hours per week.

152 Class Strings: Cello and String Bass (1)
Prerequisite: Non-music majors must have permission of instructor. A study of techniques of playing and teaching the cello and string bass. A survey of instructional materials, and bow and instrument selection. Two hours per week.

153 Class Woodwinds: Flute and Clarinet (1)
Prerequisite: Non-music majors must have permission of instructor. A study of techniques of playing and teaching the flute and clarinet. A survey of instructional materials, and instrument selection. Two hours per week.

154 Class Woodwinds: Oboe and Bassoon (1)
Prerequisite: Non-music majors must have permission of instructor. A study of techniques of playing and teaching the oboe and bassoon. A survey of instructional materials, instrument selection, and reed adjustment. Two hours per week.

155 Class Brass (1)
Prerequisite: Non-music majors must have permission of instructor. A study of techniques of playing and teaching the brass instruments. A survey of instructional materials, and instrument selection. Two hours per week.

156 Class Percussion (1)
Prerequisite: Non-music majors must have permission of instructor. A study of techniques of playing and teaching the percussion instruments. A survey of instructional materials and instrument selection. Two hours per week.

157 Class Guitar (1)
Prerequisite: Non-music majors must have permission of instructor. A study of techniques of playing and teaching the guitar. A survey of instructional materials and instrument selection. Two hours per week.

158 Class Voice I (1)
A study of the human voice in artistic singing. Practical application of basic principles will be emphasized. Two hours per week.

159 Class Voice II (1)
A continuation of voice study begun in Musi 158, with emphasis on artistic singing in several styles. Two hours per week.

171 Class Piano I (1)
For music majors only. The study of the piano keyboard as it is related to various clefs in music. Emphasis will be placed on the solution of basic problems of a stylistic and technical nature.

172 Class Piano II (1)
Prerequisite: Musi 171 or permission of instructor. For music majors only. The study of the piano keyboard as it is related to intermediate song and combined in various music forms.

173, 174, 273, 274, 373, 374, 473, 474 Private Music Instruction—Instrumental and Vocal (1, 1, 1, 1, 1, 1, 1, 1)

179, 180, 279, 280 Private Music Instruction—Instrumental and Vocal (1, 1, 1, 1)

175, 176, 275, 276, 375, 376, 475, 476 Private Music Instruction—Instrumental and Vocal (2, 2, 2, 2, 2, 2, 2, 2)

377, 378, 477, 478 Private Music Instruction—Instrumental and Vocal (3, 3, 3, 3)

221, 222, 321, 322, 421, 422 Private Music Instruction—Composition (1, 1, 1, 1, 1, 1)

223, 234, 323, 324, 423, 424 Private Music Instruction—Composition (2, 2, 2, 2, 2)

419, 422 Private Music Instruction—Conducting (1, 1)

493, 494 Private Music Instruction—Conducting (2, 2)

Prerequisites and Corequisites for Private Music Instruction

Instrumental and Vocal: Prerequisite for Musi 173, 175, and 179: Audition; for Musi 377: eight credits on the major instrument and approval by an audition committee; corequisite for Musi 377 or 378: Musi 280; corequisite for Musi 477 or 478: Musi 480; Pre- requisite for Private Music Instruction—Composition: Musi 320 (Class Composition II), portfolio of compositions, and an interview with a faculty committee. Prerequisite for Private Music Instruction—Conducting: Musi 392 (Choral Conducting) or 394 (Instrumental Conducting) and an audition before a faculty committee.

To earn one credit per semester, a student takes 14 one-half hour private music lessons; to earn two or three credits per semester, a student takes 14 one-half private music lessons.
The following amount of practice (or composing) is expected each day: one credit/50 minutes; two credits/one hour and 40 minutes; three credits/two and one-half hours.

As part of the repertoire requirement for this course, each student must attend at least 10 music programs sponsored by the Department of Fine and Performing Arts.

Private Music Instruction-Instrumental and Vocal is offered on the following:

- **Flute**
- **Oboe**
- **Clarinet**
- **Bassoon**
- **Saxophone**
- **French Horn**
- **Trumpet**
- **Trombone**
- **Tuba**
- **Piano**
- **Organ**
- **Harp**
- **Classic Guitar**
- **Voice**
- **Early Instruments**
- **Non-Western Instruments**

The Private Music Instruction Fee applies.

181 *University Chorus* (1, 1, 1, 1, 1, 1, 1, 1)
Performance of works from the choral repertoire. Public concerts will be given. May be taken for credit eight times. Three hours per week.

183 *Symphonic Winds* (1, 1, 1, 1, 1, 1, 1, 1)
Open to all students in the University who possess a reasonable amount of performing ability. Performance of works from the band repertoire. Public concerts will be given. May be taken for credit eight times. Three hours per week.

185 *Laboratory Ensemble* (1, 1)
Prerequisite: One semester of class instrumental instruction on a band or orchestra instrument. A vocal and instrumental ensemble for music majors seeking state certification as music teachers designed to provide opportunities for performance on secondary instruments and voice, and to serve as a laboratory for conducting, methods and materials, and composition and arranging classes. For music majors only. May be taken for credit two times. Three hours per week.

187 *Chamber Orchestra* (1, 1, 1, 1, 1, 1, 1, 1)
Open to all students in the University who possess a reasonable amount of performing ability. Performance of works from the symphonic repertoire. Public concerts will be given. May be taken for credit eight times. Three hours per week.

189 *Jazz Ensemble* (1, 1, 1, 1, 1, 1, 1, 1)
Prerequisite: Audition. A performing ensemble intended to provide the student with practical experience in the various aspects of jazz performance—section work within a large aggregation, combo work, and improvisation. May be taken for credit eight times. Three hours per week.

203 *Folk and Traditional Music of the World* (3)
For non-music majors only. A study of the musical structure and cultural setting of folk music among diverse people, with an introduction to the traditional art music of various non-Western cultures.

204 *Introduction to Twentieth Century Music* (3)
For non-music majors only. A survey of the various styles found in twentieth century music. Tonal, atonal, serial and experimental music will be studied.

205 *Music in the United States* (3)
For non-music majors only. A study of music in the United States from Colonial times to the present. Through interaction with actual musical examples, the student will trace significant African and European influences on the emerging musical style and artistic activity in the United States.

206 *Latin American Music* (3)
For non-music majors only. A survey of folk, popular, and artistic music of Latin American countries in a historical setting. Influences of other cultures on the musical life of representative countries will be viewed.

207 *The Development of Jazz* (3)
Prerequisite: One course in music or permission of instructor. For non-music majors only. An historical, analytical and aural survey of jazz, from its inception to the present day, designed to provide an understanding of the basic aesthetic and technical features, the course of their development and an acquaintance with important artists in the field. Attention is also given to hybrid trends resulting from the synthesis of jazz with other musical idioms.

215 *Harmony III* (3)
Prerequisite: Musi 116 or permission of instructor. A study of four-part choral harmony and analysis of nineteenth century compositions.

216 *Harmony IV* (2)
Prerequisite: Musi 215 or permission of instructor. A continuation of the study of choral harmony as it applies to the classical forms.

218 *Keyboard Harmony* (1)
Prerequisite: Musi 122 and 215. For music majors only. A study of techniques of harmonization at the piano keyboard.

231 *Survey of World Music* (3)
Prerequisite: Musi 215 or permission of instructor. A survey of music literature in the four major theoretical systems of the world with emphasis on the influences of non-Western systems on Western music.

251 *Music for the Elementary School* (4)
Prerequisite: For non-music majors only. Study of fundamentals of sound, rhythm, melody, harmony, and form, and their notation. Development of basic vocal, listening, and instrumental skills (selected keyboard, percussion, wind, and fretted string instruments). Application of these understandings and skills to the development of the elementary school child's musicality by the non-specialist classroom teacher. Five hours per week. Students who have taken LAC 182 cannot take this course.

261 *Introduction to Music Education* (3)
Prerequisite: Open to music majors or others by permission of instructor. Basic tenets of aesthetic education and their application to teaching-learing processes in music. Organization of music education in public and private elementary and secondary schools, higher education, the community, and the private studio. Includes resources and materials in music education.

285 *Chamber Ensembles* (1, 1, 1, 1, 1, 1, 1, 1)
Prerequisite: Audition. Open to all students in the University. Performance of works from the chamber music repertoire. Public performances will be given. May be taken for credit six times.

315 *Physics of Musical Sound* (3) (Same as Phys 315)
Prerequisite: Musi 116 or permission of the instructor. A course in the physics of music. Topics include simple harmonic motion, vibration, temperament, the ear, architectural acoustics, sound recording and reproduction. Three hours lecture.

319 *Class Composition and Arranging* (I, 3)
Prerequisite: Musi 216 or permission of instructor. Students are encouraged to exercise their creative powers through the writing of original compositions for specified instruments, voices or combinations. They then apply compositional principles to the creative arrangement of existing music of various styles.

320 *Class Composition II* (3)
Prerequisite: Musi 319 or permission of the instructor. The compositional skills acquired in Class Composition and Arranging I are applied to larger forms of music and larger ensembles, with emphasis on twentieth century techniques.

327 *Choral Arranging* (3)
Prerequisite: Musi 216 or permission of instructor. A comprehensive course in the practical application of the various techniques employed in the composition and arrangement of choral music. The scope of the course will include notation, text setting, choral voicing, choral texture, and contemporary vocal writing as well as the composition of original materials as they apply to arranging techniques.

335 *Historical, Theoretical, and Analytical Study of Music I* (3)
Prerequisite: Musi 216 and 231 or permission of instructor. A survey of the development of music form from the ancient times of the Mesopotamians, the Assyrians, and the Egyptians. The influences of these systems and their instruments are studied in the music of early churches: the Hebrew music in the temples and the spread to the Eastern churches including Byzantine, Coptic, Abyssinian, and Armenian music. These roots are traced to the Greek and Roman cultures through the Middle Ages with emphasis upon historical, theoretical, and analytical aspects.

336 *Historical, Theoretical, and Analytical Study of Music II* (3)
Prerequisite: Musi 216 and 231 or permission of instructor. A study of the development of music in Western civilization from the early Renaissance through the early Baroque periods, with emphasis upon historical, theoretical, and analytical aspects.

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379 Improvisation (1)
Prerequisite: Musi 216 and 218 or permission of instructor. Students are taught to apply the techniques of improvisation used in the various periods of music history on their major instruments and the piano. Two hours per week.

380 Junior Recital (1)
Corequisite: Musi 377 or 378. A public recital given by students during their junior year.

385 Collegium Musicum (1, 1, 1, 1)
Prerequisite: Audition. The discovery, interpretation and performance of vocal, choral and instrumental music from the historical repertoire. Emphasis will be placed on bringing to the University community those musical compositions which are not readily accessible in the regular concert repertoire. May be taken for credit four times. Three hours per week.

391 General Conducting (2)
Prerequisite: Musi 172, 216 and 218 or permission of instructor. A study of basic techniques of conducting a musical ensemble. Three hours per week.

392 Choral Conducting (2)
Prerequisite: Musi 391. An advanced conducting course emphasizing the techniques of bringing a choral singing group to concert standard. Consideration will be given to the interpretation of repertoire from all historical periods. Three hours per week.

394 Instrumental Conducting (2)
Prerequisite: Musi 391. An advanced conducting course emphasizing the techniques of bringing an orchestra or wind ensemble to concert standard. Consideration will be given to the interpretation of repertoire from the applicable historical periods, including transposition and score reading. Three hours per week.

400 Fusion of the Arts (3)
(See EuSt 400, listing under the European Studies major.)

435 Historical, Theoretical, and Analytical Study of Music III (3)
Prerequisite: Musi 216 and 231 or permission of instructor. A study of the development of music in Western civilization from the late Baroque through early Romanticism, with emphasis upon historical, theoretical, and analytical aspects.

436 Historical, Theoretical, and Analytical Study of Music IV (3)
Prerequisite: Musi 216 and 231 or permission of instructor. A study of the development of styles of music in Western civilization from the works of the late Romantic composers through the present day avant garde compositions, with emphasis upon historical, theoretical, and analytical aspects.

437 Choral Literature (3)
Prerequisite: Musi 216 and 231 or permission of instructor. A survey of sacred and secular choral literature from the Middle Ages to the present, with emphasis on historical development, analysis, and performance practices. Representative genres such as Mass, motet, madrigal, anthem, cantata, passion, oratorio, and part-song will be studied.

438 Operatic Literature (3)
Prerequisite: Musi 216 and 231 or permission of instructor. A study of the opera from the seventeenth century to the present, with emphasis on historical and stylistic development. Important works in the operatic repertory will be discussed and analyzed.

439 Piano Literature (3)
Prerequisite: Musi 216 and 231 or permission of instructor. A chronological survey of the literature of the piano and its antecedents from the seventeenth century to the present. Solo keyboard genres such as suite, sonata, theme and variations, and character pieces will be analyzed and examined in an historical context.

440 Orchestral Literature (3)
Prerequisite: Musi 216 and 231 or permission of instructor. A chronological survey of the development of the orchestra and its literature from the seventeenth century to the present. Suites, symphonies, concertos, symphonic poems, and other orchestral works of important composers will be analyzed and studied in an historical framework.

445 Bibliography and Research Techniques (3)
Prerequisite: Open only to music majors with senior standing and two of the following courses: Musi 335, 336, 435, 436 and permission of the instructor and the music faculty. A study of basic reference materials in music, as well as the investigation and application of various research principles.

461 The Teaching of General Music in the Elementary School (3)
Prerequisites/Corequisites: Musi 114, 216, 218, 392 (or 394) and Educ 301 and 313. For music majors only. A study of theory, methods, practice, and materials involved in the teaching of general music in the elementary school. Emphasis is on developing effective teaching-learning activities designed to build musical understanding through the acquisition of knowledge, understanding, and skills centering on the structure of music. Field experiences in the public schools are required.

462 The Teaching of General Music in the Secondary School (3)
Prerequisites/Corequisites: Musi 114, 216, 218, 392 (or 394) and Educ 301 and 313. For music majors only. A study of theory, methods, practices, and materials involved in the teaching of general music in the secondary school. Emphasis is placed on philosophical foundations, the development of objectives, evaluation of student progress, motivational techniques, and materials. Field experiences in the public schools are required.

463 The Teaching of Vocal Music in the Secondary School (3)
Prerequisites/Corequisites: Musi 114, 216, 218, 392 (or 394) and Educ 301 and 313. For music majors only. A survey of repertoire and methods for teaching high school choral groups, small ensembles and voice classes. Problems of dictation, interpretation, tone production, intonation, phrasing, rehearsal techniques, style characteristics and administration. Field experiences in the public schools are required.

464 The Teaching of Instrumental Music in the Elementary and Secondary School (3)
Prerequisites/Corequisites: Musi 114, 216, 218, 392 (or 394) and Educ 301 and 313. For music majors only. A study of theory, methods, practices, and materials involved in the teaching of instrumental music at the elementary and secondary school levels. Emphasis is placed on philosophical foundations, the development of objectives, evaluation of student progress, recruiting techniques, and management of the various phases of the instrumental music program. Field experiences in the public schools are required.

495 Workshop in Italian Vocal Music (Applied Music) (3)
Prerequisite: Audition. The study and practice of Italian vocal music with stress on enunciation and inflection as is basic to Italian Chamber Music and Opera. The development of the sensitivity to the genre through the acquired knowledge of background source material. Private and ensemble coaching.

496 Seminar in Ethnomusicological Area Studies (3, 3, 3)
Prerequisite: Open only to music majors with junior or senior standing and permission of the instructor and the music faculty. Intensive research on a specialized ethnomusicological topic culminating in a seminar paper. The areas and subject under study will be determined by the instructor conducting the section and may be obtained from him/her in advance. The courses may or may not require travel to the area under study. (If travel is required, each student will finance his/her own way.) May be taken for credit four times provided a different area or subject is researched each term. Three lecture hours or the equivalent thereof.

497, 498 Independent Study (3, 3)
Prerequisite: Open only to music majors with senior standing and two of the following courses: Musi 335, 336, 435, 436, and permission of instructor, the music faculty, and the Department Chairman. Individual research and study of a selected subject in close consultation with an instructor. A student may choose from the musico logical, ethnomusico logical, theoretical, compositional, or educational areas of music, and is to produce at least one major written work based on the finding of his/her research.
Speech Courses

100 Introduction to Speech Communication (3)
An investigation of the elements affecting speech communication at the individual, small group, public and mass communication levels with emphasis on the student's effective practice of communication in each level.

110 Introduction to Oral Interpretation (3)
A basic course in the fundamental principles involved in the oral communication of the written word from writer, to reader, to audience. Practice in the oral communication of prose, poetry, and drama.

120 Introduction to Public Speaking (3)
Principles and types of public address, with emphasis on expository and persuasive speaking. Intensive practice in composition and delivery.

130 Introduction to Small Group Discussion (3)
Introduction to small group discussion and problem solving, emphasizing the development of presentation ability in a group, decision making, group maintenance, and leadership and participant skills. Preliminary study of group dynamics.

140 Forensics Seminar in Creative Arts (1, 1, 1, 1, 1, 1, 1, 1)
Prerequisite: Audition. Intensive work in various types of creative forensics events—rhetorical criticism, epideictic speaking, informative speaking, persuasive speaking, extemporaneous speaking, after-dinner speaking, and impromptu speaking. May be taken eight times for credit. Three hours per week.

141 Forensics Seminar in Re-creative Arts (1, 1, 1, 1, 1, 1, 1, 1)
Prerequisite: Audition. Intensive work in various types of re-creative forensics events—duets, mixed interpretation, solo poetry, and prose interpretation. May be taken eight times for credit. Three hours per week.

142 Forensics Seminar in Debate (1, 1, 1, 1, 1, 1, 1, 1)
Prerequisite: Audition. Intensive work in the theory and practice of intercollegiate debate. Work in research, case construction, and oral presentation of cases directed toward the analysis of the intercollegiate debate proposition. May be taken eight times for credit. Three hours per week.

210 Advanced Oral Interpretation (3)
Prerequisite: Spch 110. An advanced course in the principles and theories of oral interpretation. Practice with advanced problems in solo interpretation including the lecture-recital.

220, 221 Readers Theater (3, 3)
Prerequisite: Spch 110. A study of the development and current concepts of group communication of literature. Adaptation of literary material with practical application in direction and performance.

250 Introduction to Mass Communication (3)
An investigation of the principles of mass communication covering the history and development of mass media, the techniques and effects of advertising, the characteristics unique to the various types of mass media, the responsibility of the media to the public, and the role of the media in today's society.

261 Argumentation and Debate (3)
Prerequisite: Spch 100 or permission of instructor. The principles and techniques of argumentative speaking: analysis of debate propositions, research, evidence, forms of argument, fallacies, refutation and rebuttal. Lecture, discussion and classroom debate.

399 Special Topics in Speech Communication (3)
Prerequisite: Permission of instructor. A study of speech communication by topics, such as the basis for speech production, non-verbal communication, Afro-American rhetoric, communication reticence. The topic will change each time the course is offered.
General Aims and Guidelines

Courses in the Department of Foreign Languages and Literatures are designed to meet the needs of several categories of students. A major is provided in French, German, and Spanish for those who wish to build a liberal education around the intensive study of a foreign language, literature and culture, those who plan to undertake graduate study in these fields and those who intend to become foreign language teachers, professional translators, interpreters, and foreign correspondents.

Elective courses are provided on several levels for those who wish to acquaint themselves with the language, culture, literature and worlds of thought outside their own environment; for those majoring in disciplines that require the knowledge of one or more foreign languages; and for those who recognize that the knowledge of a foreign language combined with other professional interests in business and industry will enhance employment opportunities and advancement. These elective courses are Clas 250 and 300, Fren 252 through 255, Germ 252 through 255, Russ 252, 254, 275, 311 and Span 325. Proficiency in the foreign language is not required for Clas 250 and 300, Russ 275 and 353, Fren, Germ and Span 325, Fren 329, Germ 301 and 302 and Span 316, as these courses are taught in translation.

Elementary and intermediate courses are offered in French, German, Latin, Portuguese, Russian and Spanish, which may be used to fulfill the University's foreign language area requirement for the B.A. degree. These courses are also designed to broaden the student's general educational background and strengthen his awareness of the intrinsic value of language and linguistic heritage. The language laboratory complements the oral and written work of the classroom with tapes, drills, exercises and cultural materials.

Courses Offered in English

The knowledge of a foreign language is not required.

Clas 250 Classical Myths and Legends (3)
Prerequisite: Engl 101, 102 or equivalent or permission of the instructor. A study of the myths and legends of Greece and Rome, with an emphasis on the role of classical and modern literature and art.

*Clas 300 Homer and Greek Tragedy (3)
Prerequisite: Engl 101, 102 or equivalent, or permission of the instructor. The Iliad and Odyssey and selected plays by Aeschylus, Sophocles and Euripides. Discussion of the social setting of these works of literature. Three hours of classroom lectures.

*Fren 325 Major French Writers (3)
Prerequisite: Engl 101, 102 or equivalent, or permission of the instructor. A study of the works of major French writers (e.g., Camus, Sartre, Beckett) in translation. The writers to be studied will vary and will be announced in semester's Schedule of Classes.

*Fren 329 Problems of Western Civilization in French Literature (3)
Prerequisite: Engl 101, 102 or equivalent, or permission of the instructor. May not be taken in fulfillment of requirements for the major in French. Study of the works of major French writers (e.g., Camus, Sartre, Beckett) in translation. The writers to be studied will vary and will be announced in semester's Schedule of Classes.

FrLn 450 Methodology of Foreign Language Teaching (3)
Prerequisite: Germ 311 or 420 for German majors; Fren 355 or 461 for French majors; Span 320 for Spanish major; or permission of the instructor. Study of the major theories and methods of foreign language teaching. Practical application of these theories to the specific activities of the classroom. This course is cross-listed as Educ 450.

*Germ 325 Major German Writers (3)
Prerequisite: Engl 101, 102 or equivalent, or permission of the instructor. Study of the works of major German writers (e.g., Hesse, Kafka, Grass, Frisch) in translation. The writers to be studied will vary and will be announced in each semester's Schedule of Classes.

Germ 301 German Culture and Civilization (3)
Prerequisite: Junior standing or permission of instructor. Development of German civilization from the 18th Century to the present. German cultural contributions to world civilization.

Germ 302 Germany Today (3)
Prerequisite: Junior standing or permission of instructor. Contemporary German life. Its major aspects, problems, and goals, seen from the West German perspective.

Russ 353 Russian Civilization (3)
Prerequisite: Junior standing or permission of instructor. A survey of the civilization and culture of Russia and the Soviet Union. In addition to readings and lectures, the course will include films, slides, and music.

Russ 354 Contemporary Soviet Life (3)
The social life, art, economics, education, view of life and personal aspirations of the Soviet citizen today. Films and slides will supplement readings and lectures.

*Span 316 Social and Political Themes in the Latin American Novel (3)
Prerequisite: Engl 101, 102 or equivalent, or permission of the instructor. Study of major social and political themes in the modern Latin American novel, including the social condition of the Indian, agrarian problems, the Mexican revolution, dictators. May not be used in fulfillment of requirements for the major in Spanish.

*Span 325 Major Hispanic Writers (3)
Prerequisite: Engl 101, 102 or equivalent, or permission of the instructor. Designed for the non-major student, the course provides study of the works of major Hispanic writers (e.g., Garcia Lorca, Cela, Unamuno, Borges) in translation. The writers to be studied will vary and will be announced in each semester's Schedule of Classes. May not be taken in fulfillment of requirements for the major in Spanish.

EuSt 300 Foundations of European Civilization (3)
Prerequisite: Junior or senior standing and permission of instructors. An examination of the Greek, Roman, and Judeo-Christian origins of Europe's intellectual and cultural traditions, concentrating upon those models of political, social and artistic behavior that deeply influenced European life and thinking.

EuSt 350 Classicism and Romanticism (3)
Prerequisite: EuSt 300 or consent of the instructor. An examination of the political, philosophical, and aesthetic ideas of seventeenth, eighteenth, and nineteenth century Europe. Study of the concepts included under the rubrics of classicism and romanticism will give perspectives on the two basic ways in which modern man views himself and his world.

EuSt 450 Contemporary European Problems and Values (3)
Prerequisite: EuSt 300 or consent of the instructor. An examination of the main currents of European life and thought in the twentieth century. Study of the principal influences and events of the period, culminating in an assessment of contemporary European problems and values.

*These courses meet the B.A. general requirement in Literature.
French

Requirements for the Major in French

The degree program in French prepares students for teaching at the secondary level, for graduate study in French, or for positions in government or private enterprise that require the knowledge of French. To be a major in French, a student must maintain at least a "C" average in all French courses. No grade below "C" will count toward the major. Twenty-seven semester-hours of work in French courses at the 300 and 400 levels are required to complete a major in French, distributed as follows:

- three advanced language courses
- two survey courses (selected from Fren 375, 376, 377, 378).
- four 400-level courses or above with special permission, at least two of which must be literature.

French majors are also encouraged to include related courses in their schedule such as Clas 250, Germ or Span 325, Engl 391, Hist 440, 441, and Phil 231, 232, 251.

Students who wish to double major in French and another subject are urged to work in consultation with advisers in both disciplines.

French Courses

Placement: see Academic Policies and Procedures.

151, 152 Elementary French (4, 4)
Basic grammar, oral expression, listening comprehension and elementary reading and writing. Language laboratory instruction is an integral part of the course. 151 and 152 must be taken in sequence. Four classroom hours, two laboratory hours per week.

153 Review of Elementary French (4)
Intensive review of elementary French, including basic grammar, aural training, the development of oral skills and reading and writing proficiency. Language laboratory instruction is an integral part of the course. 153 may not be taken for credit in combination with 151 or 152. Four classroom hours, two laboratory hours per week.

251 Intermediate French (4)
Prerequisite: 152 or 153 or equivalent. Intensive review of grammar; practice in writing; development of reading proficiency and of aural and oral skills; study of the life and culture of French-speaking countries. Language laboratory instruction is an integral part of the course. Four classroom hours, two laboratory hours per week.

252 French Conversation (3)
Prerequisite: Fren 251 or equivalent. Development of oral proficiency in French. Discussion of selected topics touching on practical aspects of everyday life. Enrollment limited to 15 students.

254 Reading and Translation of French Texts (3)
Prerequisite: Fren 251 or equivalent. Reading and translation of selected texts in various fields, including the natural and social sciences. Introduction to scientific terminology. Recommended also for non-major students preparing for a graduate reading examination in French.

Sample Schedule for French Majors

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<tr>
<th>First Semester</th>
<th>Fifth Semester</th>
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<tbody>
<tr>
<td>Fren 151</td>
<td>Advanced French Courses 6</td>
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<tr>
<td>Engl 101</td>
<td>Non-Western Course 3</td>
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<tr>
<td>Hist 101</td>
<td>(Russ 275)</td>
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<tr>
<td>Phil 100</td>
<td>Electives 3</td>
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<tr>
<td>Spch 120</td>
<td>(Engl 391, Hist 400) 6</td>
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<tr>
<td>Second Semester</td>
<td>Sixth Semester</td>
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<tr>
<td>Fren 152</td>
<td>Advanced French Courses 9</td>
</tr>
<tr>
<td>Engl 102</td>
<td>Non-Western Course 3</td>
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<tr>
<td>Hist 102</td>
<td>(Russ 353)</td>
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<td>Soci 101</td>
<td>Elective (Hist 441) 3</td>
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<td>Reli 132</td>
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<tr>
<td>Third Semester</td>
<td>Seventh Semester</td>
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<tr>
<td>Fren 251</td>
<td>Advanced French Courses 9</td>
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<tr>
<td>Fren 326</td>
<td>Literature Courses 3</td>
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<tr>
<td>Natural Science</td>
<td>3</td>
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<tr>
<td>Mathematics</td>
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<td>14</td>
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<tr>
<td>Fourth Semester</td>
<td>Eighth Semester</td>
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<tr>
<td>Fren 252 or 254 or 255</td>
<td>Advanced French Courses 3</td>
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<tr>
<td>Fren 355</td>
<td>Literature Courses 3</td>
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<tr>
<td>Fren 329</td>
<td>Germ 325 3</td>
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<td>Natural Science</td>
<td>3</td>
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<td>Musi 101 or Art 221</td>
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Sample Schedule for Double Major in French and Spanish

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<th>First Semester</th>
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<tbody>
<tr>
<td>Span 151</td>
<td>Span 303 3</td>
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<tr>
<td>Fren 252 or 254 or 255</td>
<td>Span 305 3</td>
</tr>
<tr>
<td>Engl 101</td>
<td>Fren 375 or 377 3</td>
</tr>
<tr>
<td>History</td>
<td>Mathematics 3</td>
</tr>
<tr>
<td>Spch 120</td>
<td>Non-Western Course 3</td>
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<td>Second Semester</td>
<td>Sixth Semester</td>
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<tr>
<td>Span 152</td>
<td>Span 304 3</td>
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<td>Fren 355</td>
<td>Span 306 3</td>
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<tr>
<td>Engl 102</td>
<td>Fren 376 or 378 3</td>
</tr>
<tr>
<td>History</td>
<td>French (400 level) 3</td>
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<tr>
<td>Sociology</td>
<td>Engl 391 3</td>
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<td>Third Semester</td>
<td>Seventh Semester</td>
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<tr>
<td>Span 251</td>
<td>Span 307 3</td>
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<tr>
<td>Fren 351 or 353</td>
<td>Spanish (300 or 400 level) 3</td>
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<tr>
<td>Natural Science</td>
<td>Fren 381 3</td>
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<tr>
<td>Music or Art</td>
<td>French (400 level) 3</td>
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<td>Fren 326</td>
<td>Non-Western Course 3</td>
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<td>Fourth Semester</td>
<td>Eighth Semester</td>
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<td>Span 252 or 254</td>
<td>Span 308 3</td>
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<tr>
<td>Fren 353 or 356</td>
<td>Spanish (400 level) 6</td>
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<tr>
<td>Span 325</td>
<td>Non-Western Course 3</td>
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<tr>
<td>Natural Science</td>
<td>French (400 level) 3</td>
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<tr>
<td>Philosophy or Religion</td>
<td>3</td>
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http://catalog.gmu.edu
255 French Literary Masterpieces (3)
Prerequisite: Fren 251 or equivalent. Reading of selected works in the original language. Students may elect to take their examination in French or in English.

325 Major French Writers (3)
Prerequisite: Eng 101 or 102 or equivalent, or permission of the instructor. May not be taken in fulfillment of requirements for the major in French. Study of the works of major French writers (e.g., Camus, Sartre, Beckett) in translation. The writers to be studied will vary and will be announced in the semester's Schedule of Classes. All course work in English.

329 Problems of Western Civilization in French Literature (3)
Prerequisite: Eng 101 or 102 or equivalent, or permission of the instructor. May not be taken in fulfillment of requirements for the major in French. Basic philosophical, moral, social and political dilemmas reflected in the literature of major French writers. The problems to be studied will be announced in the semester's Schedule of Classes. All course work in English.

The following courses, which are applicable to the major, are taught in French. Some may be taken concurrently.

351 Advanced French Grammar (3)
Prerequisite: Fren 251 or equivalent. Systematic review of French grammar with emphasis on syntax, idiomatic construction, vocabulary building, and literary style. Written and oral exercises.

353 Advanced Conversation and Composition (3)
Prerequisite: Fren 251 or permission of instructor. Intensive study of French pronunciation and diction. Practice in hearing and transcribing phonetic sounds. Recitation of poems and rhythmic prose. Two laboratory hours in addition to classroom hours. Enrollment limited to 15 students.

355 Phonetics and Oral Expression (3)
Prerequisite: Fren 251 or permission of instructor. Intensive study of French pronunciation and diction. Practice in hearing and transcribing phonetic sounds. Recitation of poems and rhythmic prose. Two laboratory hours in addition to classroom hours. Enrollment limited to 15 students.

356 Interpretation and Advanced Translation (3)
Prerequisite: Fifteen semester hours of French or permission of instructor. An introduction to the outstanding contributions of French to world civilization, with emphasis on the development of her ideas, arts, sciences and institutions. Offered in alternate years.

375 French Civilization: From Ancient Gaul to the French Revolution (3)
Prerequisite: Fren 251 or permission of instructor. A study of the current events of the development of French through the centuries, with reading and analysis of representative texts of the major authors. Offered in alternate years.

376 French Civilization: From the Revolution to Contemporary France (3)
Prerequisite: Fren 251 or permission of instructor. See Fren 375.

377 Survey of French Literature: Middle Ages to 1800 (3)
Prerequisite: Fren 251 or permission of instructor. A survey of the main currents of French literature through the centuries, with reading and analysis of representative texts of the major authors. Offered in alternate years.

378 Survey of French Literature: 1800 to Present (3)
Prerequisite: Fren 251 or permission of instructor. See Fren 377.

381 Explication de Textes (3)
Prerequisite: Fifteen semester-hours of French or permission of instructor. A structured approach to the reading and analysis of French literary texts. Offered in alternate years.

405 French Literature of the Renaissance (3) (formerly 427)
Prerequisite: Fifteen semester-hours of French or permission of instructor. The development of the humanistic tradition in France during the sixteenth century, especially as reflected in the works of Rabelais and Montaigne.

413 French Literature of the Seventeenth Century: Classical Drama (3) (formerly 423)
Prerequisite: Fifteen semester-hours of French or permission of instructor. A study of the dramatic literature of the seventeenth century, with emphasis on the major works of Corneille, Racine, and Molière.

414 French Literature of the Seventeenth Century: Prose and Poetry (3) (formerly 424)
Prerequisite: Fifteen semester-hours of French or permission of instructor. Reading and analysis of representative texts of the major authors.

421 French Literature of the Eighteenth Century: Montesquieu and Voltaire (3) (formerly 419)
Prerequisite: Fifteen semester-hours of French or permission of instructor. The study of Montesquieu, Voltaire, and other writers of the first half of the century.

422 French Literature of the Eighteenth Century: Diderot and Rousseau (3) (formerly 420)
Prerequisite: Fifteen semester-hours of French or permission of instructor. The study of Diderot, Rousseau, and other writers of the second half of the century.

431 French Literature: 1800-1850 (3) (formerly 415)
Prerequisite: Fifteen semester-hours of French or permission of instructor. The poetry, theatre, and novel of the Romantic and Parnassian movements.

432 French Literature: 1850-1900 (3) (formerly 416)
Prerequisite: Fifteen semester-hours of French or permission of instructor. The poetry, theatre, and novel of the Realist, Naturalist and Symbolist movements.

441 Twentieth-Century Prose Fiction (3) (formerly 411)
Prerequisite: Fifteen semester-hours of French or permission of instructor. The study of the major theories and methods of modern foreign language teaching. Practical application of these theories to the specific activities of the classroom. This course is identical to Edu 450.

451 Writers of French-Speaking Africa and the Caribbean (3)
Prerequisite: Fifteen semester-hours of French or permission of instructor. Study of selected poems, plays, tales and novels expressing the culture and aspirations of the peoples of Africa and the Caribbean. Such authors as Senghor, Césaire, Dadoo, Oyono are included.

461 Linguistic Structure of Modern French (3)
Prerequisite: Fifteen semester-hours of French or permission of instructor. A descriptive analysis of the phonology, morphology and syntax of modern standard French. Offered in alternate years.

490, 491 Independent Study (1-3, 1-3)
Prerequisite: Senior standing as a major in French and permission of the Department Chairman. Research and analysis of a selected problem in literature or linguistics in consultation with a member of the Department. A maximum of six hours of independent study may be applied to fulfillment of requirements in the major.

497, 498 Senior Honors Tutorial (3, 3)
Prerequisite: Senior standing as a major in French, with an overall grade point average of 3.0 and 3.0 in the major field. Students who meet these requirements will be admitted to candidacy upon submission of a letter of application to the departmental Honors Committee in the second half of the junior year, supported by a faculty recommendation and an interview by and with the approval of the Honors Committee. In the first semester, weekly meetings with a faculty member to discuss readings from a comprehensive list prepared by the French faculty. In the second semester, independent research and completion of an honors essay under the supervision of a member of the French faculty.
German

Requirements for the Major in German

The major in German prepares students for teaching careers on the secondary school level, for graduate study in Germanic languages and literature, and for research and professional work in government and private enterprise.

To major in German a student should have at least a "C" average in previous German courses. Germ 254 is a prerequisite for all courses in the major program. Twenty-seven hours of work in German courses at the 300 and 400 levels are required for completion of the major. Students are urged to include Phil 231, 232, Hist 314 and Engl 391 among their electives.

Sample Schedule for German Majors

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<tr>
<th>First Semester</th>
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<tr>
<td>Germ 151</td>
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<tr>
<td>Natural Science</td>
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<tr>
<td>Engl 101</td>
<td>Germ 311</td>
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<tr>
<td>Social Science</td>
<td>Germ 351 or 361</td>
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<td>Electives</td>
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<td>Germ 152</td>
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<tr>
<td>Natural Science</td>
<td>Germ 312</td>
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<td>Engl 102</td>
<td>Germ 352 or 362</td>
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<tr>
<td>Social Science</td>
<td>Social Science B</td>
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<td>Germ 251</td>
<td>3</td>
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<tr>
<td>Mathematics</td>
<td>Germ 313</td>
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<tr>
<td>Spch 120</td>
<td>Germ 405, 409, or 411</td>
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<tr>
<td>Non-Western Culture</td>
<td>Electives</td>
</tr>
<tr>
<td>Humanities</td>
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<td>Germ 254</td>
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<td>Germ 252</td>
<td>Germ 314 or 420</td>
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<tr>
<td>Humanities</td>
<td>Germ 406</td>
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<tr>
<td>Non-Western Culture</td>
<td>Electives</td>
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<td>Elective</td>
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German Courses

Placement: see Academic Policies and Procedures.

151, 152 Elementary German (4, 4)
Intensive introduction to German, including basic grammar, aural training, the development of oral skills and reading proficiency. Introduction to the life and culture of German-speaking countries through selected readings, and programs in the language laboratory. Four classroom hours and two laboratory hours per week. 151 and 152 must be taken in sequence.

153 Review of Elementary German (4)
An intensive review of elementary German designed for students who have had two years of secondary school German but whose level of proficiency does not qualify them for Germ 251. Introduction to the life and culture of German-speaking countries through selected readings, and programs in the language laboratory. Four classroom hours, two laboratory hours per week. May not be taken for credit in combination with 151 or 152.

251 Intermediate German (4)
Prerequisite: 152 or 153 or equivalent. Intensive review of grammar; practice in writing; development of reading proficiency and of oral and aural skills; continued study of the life and culture of German-speaking countries. Language laboratory instruction is an integral part of the course. Four classroom hours, two laboratory hours per week.

252 to 255: Application and expansion of the language skills acquired in Germ 151 to 251, in one or more of the following subject areas. These courses may be taken singly, concurrently, or in any order.

252 German Conversation and Composition (3)
Prerequisite: Germ 251 or equivalent. Development of oral proficiency and writing skills through discussions, reports and compositions on contemporary German events and culture.

253 Scientific German (3)
Prerequisite: Germ 251 or equivalent. The student becomes acquainted with specific terminology and structure of scientific texts through supervised readings and translation of materials from the scientific fields.

254 Readings in German Literature (3)
Prerequisite: Germ 251 or equivalent. Introduction to German literature through a study of poetry, prose and dramas by major authors of the modern era (e.g., Brecht, Boll, Hesse, Mann). Preparation for the analysis of literature in German, including familiarization with the tools of German literary criticism. Prerequisite for all German courses in the major program.

301 German Culture and Civilization (3)
Prerequisite: Junior standing or permission of instructor. Development of German civilization from the eighteenth century to the present. German cultural contributions to world civilization.

302 Germany Today (3)
Prerequisite: Junior standing or permission of instructor. Contemporary German life. Its major aspects, problems, and goals, seen from the West German perspective.

311 Advanced German Grammar (3)
Prerequisite: Germ 254 or permission of instructor. A systematic approach to the grammar of modern German. The theoretical knowledge will be applied in closely guided and supervised written and oral exercises.

312 Practical Stylistics (3)
Prerequisite: Germ 254 or permission of instructor. Presentation of the main stylistic and idiomatic features of German. Practice of these features (synonyms, idiomatic expressions, different levels of style, etc.) in closely guided and supervised exercises.

313, 314 Advanced Conversation and Composition (3, 3)
Prerequisite: Germ 254 or permission of instructor. Development of verbal skills and proficiency in composition beyond the 252 level; frequent oral and written reports based on topical and cultural materials.

325 Major German Writers (3)
Study of the works of major German writers (e.g., Hesse, Kafka, Grass, Frisch) in translation. The writers to be studied will vary and will be announced in each semester's Schedule of Classes. All course work in English.
351, 352 German Literature from Its Beginnings to 1750 (3, 3)
Prerequisite: Germ 254 or permission of instructor. Germ 351: Early German literature from the heroic saga to the decline of the Middle Ages, with emphasis on the courtly epics and lyrics of Walther von der Vogelweide. Germ 352: literature of the Renaissance and Reformation, Baroque and the advent of the Enlightenment.

361, 362 German Literature of the Romantic Era (3, 3)
Prerequisite: Germ 254 or permission of instructor. Germ 361 consists of works by Jean Paul, Kleist, the theoretical and literary writings of the earlier Romantic poets Schlegel, Tieck, Novalis, and of the philosophers Schelling and Schleiermacher. Germ 362 studies the Romantic writers Arnim, Brentano, Eichendorff, E. T. A. Hoffmann and Heine, as well as their collections of folk songs and tales.

370 German Literature from the Decline of Romanticism to 1880 (3)
Prerequisite: Germ 254 or permission of instructor. Study of the literature of Young Germany, Biedermeier and Poetic Realism; the prose, drama, and lyric poetry of Heine, Hebbel, Buchner, Stifter, Storm, Keller, Meyer, and Fontane will be read and discussed.

405, 406 The Age of Goethe (1750-1830) (3, 3)
Prerequisite: Germ 254 or permission of instructor. The work of Goethe, his predecessors and contemporaries will be studied in its historical setting and in the context of its current revival.

410, 412 German Literature since 1880 (3, 3)
Prerequisite: Germ 254 or permission of instructor. Study of the major literary movements since 1880. Germ 411 examines Naturalism, Impressionism, the works of the fin de siecle writers, and Expressionism. Germ 412 presents the literary trends since 1925, including the works of Thomas Mann, Brecht, Hesse, Böll, Celan, Eich, Grass, Frisch and Durrenmatt.

420 Linguistics of Modern German (3)
Prerequisite: Germ 254 or permission of instructor. Study of the German language introducing the principles of modern linguistics. Analysis of German phonology, morphology and syntax. Particularly valuable to the student who intends to teach or undertake graduate study in German.

425, 426 Independent Study (1-3, 1-3)
Prerequisite: Senior standing as a major in German and permission of the Department Chairman. Research and analysis of a selected problem in literature or linguistics in consultation with a member of the Department. A maximum of six hours of independent study may be applied to fulfillment of requirements in the major.

FrLn 450 Methodology of Foreign Language Teaching (3)
Prerequisite: Germ 311 or 420 for German majors; or permission of the instructor. Study of the major theories and methods of foreign language teaching. Practical application of these theories to the specific activities of the classroom. This course is identical to Educ 450.

497, 498 Senior Honors Tutorial (3, 3)
Prerequisite: Senior standing as a major in German, with an overall grade point average of 3.0 and 3.0 in the major field. Students who meet these requirements will be admitted to candidacy upon submission of a letter of application to the departmental Honors Committee in the second half of the junior year, supported by a faculty recommendation and an interview by and with the approval of the Honors Committee. In the first semester, weekly meetings with a faculty member to discuss readings from a comprehensive list prepared by the German faculty. In the second semester, independent research and completion of an honors essay under the supervision of a member of the German faculty.

Latin Courses
Placement: see Academic Policies and Procedures.

101, 102 Elementary Latin (3, 3)
Introduction to Latin, including basic grammar and the development of reading skills, introduction to Latin literature and Roman civilization. Three classroom hours and one laboratory hour per week. 101 and 102 must be taken in sequence.

201 Intermediate Latin: Prose and Poetry (3)
Prerequisite: Latin 102 or equivalent. Intensive review of elementary grammar; introduction to more advanced grammatical constructions and patterns of usage; continued development of reading proficiency in various genres selected from classical and post-classical Latin literature; study of the origin and development of Latin literature. Three classroom hours and one laboratory hour per week.

202 Intermediate Latin: The Golden and Silver Ages (3)
Prerequisite: Latin 201 or equivalent. Study of advanced grammatical constructions and patterns of usage; reading selections from various Latin authors who flourished during the late Republic and early Empire of Rome; study of the cultural and political background of classical Latin authors. Three classroom hours and one laboratory hour per week.

321, 322 Latin Tutorial (1-3, 1-3)
Prerequisite: Latin 202 or equivalent, and permission of the Department. Readings in Latin drawn from classical or post-classical literature. Selection of authors or genres by the instructor in consultation with the student. Meetings on a tutorial basis. The tutorial may be repeated once under each number to a maximum of four separate topics and twelve semester hours of credit.

Portuguese Courses
Placement: see Academic Policies and Procedures.

151, 152 Elementary Portuguese (4, 4)
Intensive introduction to Portuguese, including basic grammar, aural training, the development of oral skills and reading proficiency. Introduction to the life and culture of Portuguese-speaking countries through selected readings, and programs in the language laboratory. Four classroom hours, two laboratory hours per week. 151 and 152 must be taken in sequence.

251 Intermediate Portuguese (4)
Prerequisite: Port 151, 152 or equivalent. Intensive review of basic grammar; introduction to more difficult grammatical constructions and patterns of usage; continued development of reading proficiency and of aural and oral skills; continued study of the life and culture of Portuguese-speaking countries. Four classroom hours, two laboratory hours per week.
Russian Courses
Placement: see Academic Policies and Procedures.

151, 152 Elementary Russian (4, 4)
Intensive introduction to Russian, including basic grammar, aural training, the development of oral skills and reading proficiency. Introduction to the life and culture of Russia through selected readings, and programs in the language laboratory. Four classroom hours, two laboratory hours per week. 151 and 152 must be taken in sequence.

251 Intermediate Russian (4)
Prerequisite: Russ 152 or equivalent. Intensive review of grammar; practice in writing; development of reading proficiency and of aural and oral skills, continued study of the life and culture of Russia. Language laboratory instruction is an integral part of the course. Four classroom hours, two laboratory hours per week.

252 Russian Conversation and Composition (3)
Prerequisite: Russ 251 or permission of instructor. Development of the student's ability to express himself orally on topics of current interest and everyday situation; composition will provide practice in more difficult forms of expression.

254 Readings in Russian Literature (3)
Prerequisite: Russ 251 or permission of instructor. Readings of Russian literary works in the original language with all lectures, discussions and examination in English.

275 Contemporary Soviet Life (3)
No prerequisite. The social life, art, economics, education, view of life and personal aspirations of the Soviet citizen today. All classroom discussions and reading assignments will be in English. A number of Soviet films will be shown.

311 Contemporary Soviet Short Fiction (3)
Prerequisite: Russ 251 or equivalent, and permission of instructor. Reading and discussion of recent short stories by the best-known Soviet writers of today. Readings will be in the original language, with lectures and discussion partly in English, partly in Russian.

353 Russian Civilization (3)
Prerequisite: Junior standing or permission of instructor. A survey of the civilization and culture of Russia and the Soviet Union. In addition to readings and lectures, the course will include films, slides, and music. All course work in English.

Spanish

Requirements for the Major in Spanish
The degree program in Spanish prepares the major to teach on the secondary school level, to undertake graduate study in Spanish, or to qualify for positions in government and industry that require a knowledge of Spanish.

Twenty-seven hours of work in Spanish courses beyond the 259-level are required for the Spanish major. The student who majors in Spanish will also find it useful to complete some or all of these related courses: Engl 203, 204 (Western Literary Masterpieces), Engl 391 (General Linguistics), Hist 271, 272 (Latin-American History), and Hist 443 (History of Spain and Portugal).

Sample Schedule for Spanish Majors

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<td>Engl 102</td>
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<td>Mathematics</td>
<td>Non-Western Culture (Hist 271)</td>
<td>Hist 272</td>
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<td>General Linguistics (Eng 391)</td>
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Spanish Courses


151, 152 Element Spanish (4, 4)
Intensive introduction to Spanish, including basic grammar, aural training, the development of oral skills and reading proficiency. Introduction to the life and culture of Spanish-speaking countries through selected readings, and programs in the language laboratory. Four classroom hours and two laboratory hours per week. 151 and 152 must be taken in sequence.

153 Review of Elementary Spanish (4)
An intensive review of elementary Spanish designed for students who have had two years of secondary school Spanish but whose level of proficiency does not qualify them for Span 251. Introduction to the life and culture of Spanish-speaking countries through selected readings, and programs in the language laboratory. Span 153 may not be taken for credit in combination with 151 or 152. Four classroom hours, two laboratory hours per week.

251 Intermediate Spanish (4)
Prerequisite: 152 or 153 or equivalent. Intensive review of grammar: practice in writing; development of reading proficiency and of aural and oral skills; study of the life and culture of Spanish-speaking countries. Language laboratory instruction is an integral part of the course. Four classroom hours, two laboratory hours per week.

141, 142 Applied Spanish for the Social Services (4, 4)
A practical Spanish course designed specifically to meet the professional needs of majors in the social services: Nursing, Law Enforcement, Public Administration, Social Welfare. Four classroom hours and two laboratory hours per week. 141 and 142 must be taken in sequence, and may be taken in lieu of Span 151 and 152 to fulfill the first two semesters of the language requirement.

Spanish 241 Applied Spanish for the Social Services (4)
Prerequisite: 142 or its equivalent. Continuation of Span 142. Four classroom hours and two laboratory hours per week. It may be taken in lieu of Span 251 to fulfill the final semester of the language requirement.

252 to 259: Application and expansion of language skills acquired through the intermediate level, in one or more of the following areas. These courses may be taken singly, concurrently or in any order.

252 Spanish Conversation and Composition (3)
Prerequisite: Span 251 or equivalent. Development of the student’s ability to express himself orally on topics of current interest and everyday situations; compositions will provide practice in more difficult forms of expression.

253 Commercial Spanish (3)
Prerequisite: Span 251 or equivalent. Introduction to the terminology and usage of Spanish in business transactions; practice in the composition of business reports and letters is stressed.

254 Spanish Civilizations (3)
Prerequisite: Span 251 or equivalent. An introduction to the civilization and culture of Spain: in addition to readings, the course will include slides, music, and field trips, to increase the student’s direct appreciation of Spain’s distinctive heritage.

255 Latin American Civilization (3)
Prerequisite: Span 251 or equivalent. Introductory study of Latin American civilization, with emphasis upon its cultural, historical, and artistic aspects. Films, music, and field trips will supplement the readings.

256 Readings in Spanish Literature (3)
Prerequisite: Span 251 or equivalent. Masterpieces of Spanish literature representative of the essential ideas and culture of Spain; the readings will include one novel, one drama, and a carefully selected sampling of short stories and poetry.

257 Readings in Latin American Literature (3)
Prerequisite: Span 251 or equivalent. An introduction to the literature of Hispanic America through the reading and discussion of short stories, a novel, a play, and selected poetry of its major literary figures.

258 Masterpieces of Spanish Literature (3)
Prerequisite: Span 251 or equivalent. Selected Spanish masterpieces which focus on those literary currents (e.g., themes, works, authors) which have enriched the body of world literature. Primarily intended for non-majors. Readings in Spanish with class discussion, tests and examination in English.

259 Translation of Spanish Texts (3)
Prerequisite: Span 251 or equivalent. Readings and translation of texts selected from current periodicals and newspapers in the following areas: economics, political science, psychology, sociology, history, etc. Recommended for all students who wish to improve their reading and writing of Spanish and for Latin American Studies majors.

300 Spanish Civilization and Culture (3)
Prerequisite: 15 semester-hours of Spanish or permission of instructor. A survey of Spanish culture and civilization from the Pre-Roman era to the twentieth century. Primarily for Spanish majors.

301 Advanced Grammar and Syntax (3)
Prerequisite: 15 semester-hours of Spanish or permission of instructor. An in-depth review of Spanish grammar and syntax. The course provides extensive practice in controlled and free writing, with emphasis on the fundamental difficulties and points of interference which exist between English and Spanish.

303, 304 Advanced Conversation and Composition (3, 3)
Prerequisite: Span 252 or permission of instructor. These courses are structured to emphasize development of the skills required both to speak and write Spanish correctly. They are required courses in the Spanish major program. They may be taken concurrently with Span 300, 305, 306, 307, 308 and 315; but must precede all other courses in the major program.

305, 306 Survey of Spanish Literature (3, 3)
Prerequisite: 15 semester-hours of Spanish or permission of instructor. A survey of Spanish peninsular literature. During the first semester important authors and major movements from medieval times through the eighteenth century will be studied; the second semester will include authors and movements of the nineteenth and twentieth centuries. Collateral readings and reports on some authors are required.

307, 308 Spanish American Literature (3, 3)
Prerequisite: 15 semester-hours of Spanish or permission of instructor. A survey of the development of the poetry, novel, drama, essay and short story in Spanish America from the colonial period to the present. Span 307 studies the literature of Spanish American countries from colonial times to the twentieth century; Span 308 is a study of twentieth-century literature. Collateral readings. Recommended for Spanish majors.

309, 310 Literature of the Golden Age (3, 3)
Prerequisite: Span 305, 306 or permission of instructor. Advanced study of major literary works of the Spanish Golden Age (1517-1660), with emphasis on the works of Cervantes, Lope de Vega, Tirso de Molina, and Calderon.

313, 314 Spanish Literature of the Nineteenth Century (3, 3)
Prerequisite: Span 305, 306 or permission of the instructor. A study of the major works of nineteenth-century Spanish literature. Spanish 313 makes an in depth investigation of the main authors of the Romantic and Post Romantic period such as Rivas, Zorrilla, Alarcon, and Becquer. Span 314 concentrates on the rise of Realism and Naturalism as found in the works of Galdos, Clarin, Ibarz and other authors of the second half of the century.

315 Latin American Civilization and Culture (3)
Prerequisite: 15 semester-hours of Spanish or permission of instructor. Introductory study of Latin American civilization and culture, with supporting study of the history of the continent. The course is conducted in Spanish.

316 Social and Political Themes in the Latin American Novel (3)
Prerequisite: Eng 101 or 102 or equivalent, or permission of the instructor. Study of major social and political themes in the modern Latin American novel, including the social condition of the Indian, agrarian problems, the Mexican revolution, dictators. May not be used in fulfillment of requirements for the major in Spanish. All course work in English.

320 Linguistics of the Spanish Language (3)
Prerequisite: 303, 304 and 305, 306 or permission of instructor. A general introduction to Spanish linguistics with emphasis on phonology and syntax. This course is invaluable to Spanish majors planning to teach Spanish or contemplating graduate work.
325 Major Hispanic Writers (3)
**Prerequisite:** Engl 101 or 102 or equivalent, or permission of the instructor. Designed for the non-major student, the course provides study of the works of major Hispanic writers (e.g., Garcia Lorca, Cela, Unamuno, Borges) in translation. The writers to be studied will vary and will be announced in each semester's Schedule of Classes. May not be taken in fulfillment of requirements for the major in Spanish. All course work in English.

330 Spanish American Short Story (3)
**Prerequisite:** 15 semester-hours of Spanish or permission of instructor. The development of the short story in Spanish American literature from the early nineteenth century to the present. Reading and discussion of selected short stories by writers representative of major literary movements or trends.

400 Stylistics (3)
**Prerequisite:** Span 303, 304 and at least 12 hours in the literature of the Spanish language. A study of genres and literary styles; application of the material studied, through creative and translational written exercises. Recommended for senior majors in Spanish.

401 Spanish American Poetry (3)
**Prerequisite:** Span 307, 308 or permission of instructor. Study of the more representative poets of Latin America from the colonial period to the present. Special attention will be given to the poetry of Marti, Dario, Lugones, Vallejo, Huidobro, Neruda, Mistral, Villaurrutia, and Paz.

403, 404 Contemporary Spanish Literature (3, 3)
**Prerequisite:** Span 305, 306 or permission of instructor. The first semester examines in depth the main authors of the "generation of '98" including: Unamuno, Valle-Inclan, Baroja, Azorin, Benavente, and Antonio Machado. The second semester includes an analysis of contemporary post-Civil War authors: Cela, Laforet, Delibes, Buerro Vallejo, Sastre, Sanchez Ferlosio, Garcia Lorca, Jamenez, and Goytisolo. The various genres are studied in the works of these leading writers.

407, 408 Spanish American Novel (3, 3)
**Prerequisite:** Span 307, 308 or permission of instructor. The evolution and development of the novel in Spanish America from colonial times to the present. A study of the most representative works will be completed. Collateral readings will be required.

410 Cervantes (3)
**Prerequisite:** Span 303, 304, 305, 306 or permission of instructor. A study of the major works of Cervantes, with emphasis on Don Quixote.

412 Special Studies in Literature (3)
**Prerequisite:** Span 305, 306, or 307 or 308 or permission of instructor. Special studies in drama, essay, or other genres of Spanish or Latin American literature. The specific topic in a given semester may be obtained from the Department of Foreign Languages and Literatures in advance.

415 Readings in Medieval Spanish Literature (3)
**Prerequisite:** Span 303, 304 and 305, 306 or permission of instructor. A study of medieval Spanish literature, especially El Cid, and the works of authors such as Berceo, Ruiz, Manuel, Santillana, Manrique, and Rojas.

425, 426 Independent Study (1-3, 1-3)
**Prerequisite:** Senior standing as a major in Spanish and permission of the Department Chairman. Research and analysis of a selected problem in literature or linguistics in consultation with a member of the Department. A maximum of six hours of independent study may be applied to fulfillment of requirements in the major.

497, 498 Senior Honors Tutorial (3, 3)
**Prerequisite:** Senior standing as a major in Spanish, with an overall grade point average of 3.0 and 3.0 in the major field. Students who meet these requirements will be admitted to candidacy upon submission of a letter of application to the departmental Honors Committee in the second half of the junior year, supported by a faculty recommendation and an interview by and with the approval of the Honors Committee. In the first semester, weekly meetings with a faculty member to discuss readings from a comprehensive list prepared by the Spanish faculty. In the second semester, independent research and completion of an honors essay under the supervision of a member of the Spanish faculty.

FrLIn 450 Methodology of Foreign Language Teaching (3)
**Prerequisite:** Span 320 for Spanish majors; or permission of the instructor. Study of the major theories and methods of foreign language teaching. Practical application of these theories to the specific activities of the classroom. This course is identical to Educ 450.
History Courses

101, 102 History of Western Civilization (3, 3)
The historical development of western institutions, ideas, and cultures from antiquity to modern times.

121 Formation of the American Republic (3)
The social, political, economic, and intellectual growth of American institutions from colonization through the Civil War. Emphasis is placed on the formation of the Union and its subsequent industrial, social, and political growth to 1865.

122 Development of Modern America (3)
History of the United States from 1865 to the present. Territorial expansion; Reconstruction and reaction; imperialism; industrialism, individualism, and opportunity; the time of social protest; the era of war and prosperity; economic collapse and the New Deal; the end of isolation; the era of isolation; the sources and problems of world leadership and power.

251, 252 (241, 242) A Survey of East Asian Civilization (3, 3)
A survey of the history of China, Japan, Korea, and Vietnam from the pre-historic period to the present.

261, 262 Survey of African Civilization (3, 3)
A survey of the history and cultural development of Africa and African peoples from earliest times to the emergence of new African states from colonial domination. Particular attention is paid to the unique and diverse cultural traditions, relations with and effects on the rest of the world, as well as the contribution of the African heritage to the United States.

271 (361) Latin-American History: The Colonial Era (3)
Latin-American history to 1825, with emphasis upon indigenous Indian civilizations, transplantation of Hispanic and African cultures to the New World and the political, economic, social, and cultural results; Spanish-Portuguese explorations and conquests; colonial development of Latin America; the wars for independence.

Sample Schedule for B.A. in History

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<th>First Semester</th>
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<tr>
<td>Hist 101</td>
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<td>Mathematics or Logic</td>
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<td>Hist 122</td>
<td>Senior Seminar in History (or history elective)</td>
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272 (362) Latin-American History: The Modern Era (3)
The development of an independent Latin America since 1825. Emphasis is on the interactions between the United States and Latin America.

281, 282 Survey of Middle Eastern Civilization (3, 3)
A survey of the history of the major civilizations of the Middle East with particular attention to cultural, intellectual, social, and political developments.

300 Interpretations of History (3)
Required of majors in history. To be taken in the junior year. A study of the development of historical writings in the West from ancient to modern times. Lectures and discussions of the works of outstanding historians with an introduction to historical methodology.

301 Classical Greece and Rome (3)
Prerequisite: Six hours of history, or permission of instructor. The political, social, economic, and cultural history of classical Greece and Rome from the development of the city-state through the fall of the Roman Republic.

302 Imperial Rome and Byzantium (3)
Prerequisite: Six hours of history, or permission of instructor. The political, social, economic, and cultural history of the Roman and Byzantine empires from the Emperor Augustus through the fall of Constantinople in 1453.

303 Western Europe in the Middle Ages (3)
Prerequisite: Six hours of history, or permission of instructor. A survey of the development of European society from the impact of the reforms of Diocletian and Constantine to the end of the fifteenth century. Emphasis will be placed on political, institutional, economic, and social developments, including the influence of the church.

305 The Renaissance (3)
Prerequisite: Six hours of history, or permission of instructor. A survey which considers the Renaissance as a phenomenon rather than as a chronological period. Emphasis is placed on the growth of Humanism in Italy in the fourteenth and fifteenth centuries, the development of new political concepts, and the laicization of society. The transmission of these developments to transalpine Europe in the late fifteenth and sixteenth centuries is included.

306 The Reformation (3)
Prerequisite: Six hours of history, or permission of instructor. Late medieval ecclesiastical conditions and reform movements; late scholasticism; Protestant Reformation, Catholic Reformation, dynastic rivalries and religious wars. Concludes with the Peace of Westphalia (1648).

308 Nineteenth Century Europe (3)
Prerequisite: Six hours of history, or permission of instructor. Late history of Europe from the Congress of Vienna to the outbreak of World War I: political and diplomatic developments; social and economic change; growth of liberalism, nationalism, and revolutionary ideologies; industrialization, technology, and materialism; cultural norms; unification movements and Irritentism; Imperialism; the failure of diplomacy and the collapse of the European state system.

309 Contemporary Europe (3)
Prerequisite: Six hours of history, or permission of instructor. A survey of major political changes in Europe since 1914 with emphasis upon broad patterns of ideological conflict.

314 History of Germany (3)
Prerequisite: Six hours of history, or permission of instructor. History of the political, diplomatic, economic, social and cultural development of Germany from the dissolution of the Holy Roman Empire to the present.

323 England Through the Revolution of 1688 (3)
Prerequisite: Six hours of history, or permission of instructor. The development of modern England from the time of the Roman invasion through the Revolution of 1688. Roman Britain; Anglo-Saxon England; the Norman Conquest; the Angevin empire; town and country life; constitutional development; social, economic, and religious growth; Catholicism versus Protestantism; King against Parliament; Civil War and Interregnum; Restoration and Revolution.

324 England from the Revolution of 1688 (3)
Prerequisite: Six hours of history, or permission of instructor. History of England from 1688 to the present, Stuart England; political leadership; the Napoleonic era; growth of industrialization and its social and economic consequences; the period of reform; foreign affairs and imperialism, 1865-1905; the transition from
Empire to Commonwealth; the role of Britain in the mid-twentieth century.

325 Tudor and Stuart England (3)
Prerequisite: Six hours of history, or permission of instructor. A history of England from the Battle of Bosworth Field to the accession of George I.

328 Rise of Russia (3)
Prerequisite: Six hours of history, or permission of instructor. An examination of political, social, and cultural experience of Russia from the appearance of the Kievan state to the age of Pushkin.

329 Modern Russia and the Soviet Union (3)
Prerequisite: Six hours of history, or permission of instructor. An analysis of Russian civilization in the nineteenth and twentieth centuries; focusing on the failure of Tsarism, the revolutionary response, and the development of the Soviet Union.

333 Westward Movement in the United States (3)
Prerequisite: Six hours of history, or permission of the instructor. The history of the exploration, settlement, and expansion of the frontier, with emphasis on its influence upon cultural and political institutions.

335 The Afro-American Experience in the United States: African Background to 1865 (3)
Prerequisite: Six hours of history, or permission of the instructor. This course begins with a brief discussion of the origin of man, the concept of race and the impact of color on the black experience. It then moves the student from the African background to the Civil War. Special attention will be directed to the extent to which transplantation affected certain African cultural survivals in the New World. It will then examine the genesis of American savagery and prejudice, the colonial heritage, the revolutionary legacy, colonization, the abolition movement and institutionalized slavery.

336 The Afro-American Experience in the United States: Reconstruction to the Present (3)
Prerequisite: Six hours of history, or permission of the instructor. The aim of this course is to give the student a general knowledge of the experience and development of black American society from 1865 to the present. Special attention will be directed at the parallel between the nineteenth and twentieth centuries. The contradictions of emancipation, the success and failures of black reconstruction, black migration and exodus, the black renaissance, the civil rights movement, black power and black nationalism will provide the organizing themes for this course's historically chronological examination and presentation.

341, 342 United States Constitutional History (3, 3)
Prerequisite: Six hours of history, or permission of the instructor. Development of American constitutional theory and practice from its colonial origins to the present. The second semester will begin at the Civil War.

343, 344 Diplomatic History of the United States (3, 3)
Prerequisite: Six hours of history, or permission of the instructor. A survey of United States diplomatic history from 1781 to the present. Emphasis is placed upon the domestic and external forces that have shaped American diplomacy and its conduct. The second semester deals with the twentieth century.

348 American Economic History (3)
Prerequisite: Six hours of history, or permission of the instructor. A general survey of the history of American economic thought and development from colonial times to the present with stress upon the growth of modern economic institutions and the role of economic factors in the evolution of contemporary industrial America.

351 History of the Old South (3)
Prerequisite: Six hours of history, or permission of the instructor. The history of the Old South to the outbreak of the Civil War, with particular emphasis on the rise of sectionalism. The development of a distinct southern culture is traced through the emergence of economic, political, social, agricultural and intellectual institutions.

352 The South since 1865 (3)
Prerequisite: Six hours of history, or permission of the instructor. The history of the South during Reconstruction, the Redeemer era, and the New South, with particular emphasis on race relations. The political, economic, cultural, and intellectual development is traced from the aftermath of war through the South's twentieth century struggle to rejoin the mainstream of American life.

353 History of Traditional China (3)
Prerequisite: Hist 251 (241) or 252 (242) or permission of the instructor. China from earliest times to the period of modern western intrusion. Emphasis on the development of traditional Chinese culture, society, and government.
1930's. The Jazz Age, long known for its fads, frivolity and conservative political climate, will be contrasted with the age of the Great Depression and the New Deal.

410 (433) The United States since World War II: Nation and Empire (3)

Prerequisite: Six hours of history, or permission of the instructor.

An examination of the major domestic and foreign policy factors which shaped the American experience from World War II to the present. Political, social, and economic forces will be studied as they affected the nation's history. Consideration of the Fair Deal, the New Frontier, the Great Society, and the Vietnam War; for blacks, women, and students. In foreign affairs, the Cold War and detente, Korea, China, Cuba, the Middle East, and Vietnam will be studied. Emphasis will be placed on the interaction of domestic and international relations.

411 Cultural and Intellectual History of the United States: 1600-1865 (3)

Prerequisite: Six hours of history, or permission of instructor.

American thought and society from 1600 to 1865. The Puritan mind and its legacy; the Enlightenment in America; American nationalism; the rise of social democracy; development of American liberalism and conservatism; gnosticism and other religious developments; industrialism, liberal capitalism, and the idea of progress.

412 Cultural and Intellectual History of the United States since 1865 (3)

Prerequisite: Six hours of history, or permission of instructor.

A study of the impact of war on American society and the influence of the shaping of national policy. Considerable attention is devoted to such subjects as the role of the military in the economy, minority in the armed forces, and the development of peace movements. The first semester covers the period from colonial times to about 1917, while the second semester covers the American entry into World War I to the end of the Vietnam conflict.

415 United States Urban History: Colonial Origins to Civil War (3)

Prerequisite: Six hours of history, or permission of the instructor.

A study of American urbanization focusing on the origin and growth of colonial towns; the urban role in fostering nationalism; and economic rivalries during the transportation and communications revolutions. Attention will also be given to the regulations, private and public responses to the social, economic, and environmental problems stemming from rapid urbanization.

416 United States Urban History: Civil War to the Present (3)

Prerequisite: Six hours of history, or permission of the instructor.

An inquiry into the complex web of urban problems which ensued from the rapid growth of America after the Civil War with special emphasis on the following: industrialization and urbanization; the status of the urban worker; the immigrant and the city; the growth of slums; urban reform in the Progressive Era; the New Deal and the City; urban renewal; the flight to the suburbs; and new towns.

422 Intellectual and Cultural History of Europe, 1848 to the Present (3)

Prerequisite: Six hours of history, or permission of instructor.

The artistic, literary, political reaction to the revolutions of 1848. The development of Scientific Socialism and the evolutionary theories in science. A discussion of irationalist philosophies, sociology, psychology, and anthropology. Realism, Fin-de-siecle Europe and the rise of Expressionism, Cubism, and non-objective painting. Twentieth-century Existentialism.

431 Medieval Intellectual Topics (3)

Prerequisite: Six hours of history, or permission of the instructor.

An examination of a selected topic in the intellectual history of the Middle Ages. The specific topic may vary from year to year. The primary emphasis will be literary or historical, depending on the discipline of the instructor. Relevant material drawn from philosophy, theology and art may also be considered. This course is identical to Engl 431 and may be taken for credit by English, History or European Studies majors.

440 France, 1610-1789: Absolutism and Revolution (3)

Prerequisite: Six hours of history, or permission of instructor.

A survey of French history from 1610 (the assassination of Henry IV) through the establishment (Richelieu), perfection (Louis XIV), and decline (Louis XVI) of monarchical absolutism, to the opening stages of the Revolution. Emphasis will be placed on the institutional, social, intellectual, and economic transitions which occurred during this period we know as "The old regime."

441 France Since the Revolution (3)

Prerequisite: Six hours of history, or permission of instructor.

A study of domestic, foreign and cultural developments in France and their influence on Europe and the world from 1789 to the present.

443 History of Spain and Portugal (3)

Prerequisite: Six hours of history, or permission of instructor.

Development of Spain and Portugal from prehistoric to modern times, noting particularly factors related to their former empires in America.

463 The Early History of the Indo-Pakistan Subcontinent (3)

Prerequisite: Six hours of history, or permission of instructor.

The history of the Indo-Pakistan sub-continent with special reference to Indus Valley people, Hindus, Jains, Buddhists and Muslims from ancient to medieval times.

464 Modern India and Pakistan (3)

Prerequisite: Six hours of history, or permission of instructor.

The political history of the Indo-Pakistan subcontinent from mid-eighteenth century to the present. Background of the earlier cultures of the Hindus and the Muslims will be presented as a prelude to developments in the modern period.

470 Diplomacy and War in Latin America (3)

Prerequisite: Six hours of history, or permission of the instructor.

A careful study of the practice of balance of power diplomacy among the nation states of Latin America from independence to the present. Diplomacy will be placed upon a number of deeply rooted sources of conflict which have resulted in the evolution of a system of power politics and the outbreak of several major Latin American wars.

475 (453) History of Mexico (3)

Prerequisite: Six hours of history, or permission of the instructor.

Intensive study of Mexican history from the pre-Columbian era to the present, with emphasis on the national period.

478 (438) Spanish Borderlands (3)

Prerequisite: Six hours of history, or permission of the instructor.

The United States frontier from the Carolinas to the Pacific considered as a part of the kingdom of New Spain, and later, the United Mexican States, 1500-1848: expeditions of discovery, exploration, and settlement; political, cultural and social developments; foreign encroachment; incorporation of the area into the United States; and the origins of the present Mexican-American minority.

480 Alexander the Great and the Hellenistic World (3)

Prerequisite: Six hours of history, or permission of instructor.

The empire of Alexander the Great of Macedonia, the spread of Hellenism in the Ancient Near East, and the Hellenistic monarchies through the Roman conquest.

495 Racism in the United States: A Seminar (3)

Prerequisite: Senior standing. Six hours of history, or permission of instructor. A seminar on the varied manifestations of racism in the United States, as directed against Indians, Orientals, Jews, Mexican-Americans, and Afro-Americans.

498 (493, 494) Directed Readings in History (3)

Open only to senior majors in history with consent of instructor. A student may not present more than three hours of directed readings for graduation credit. A rigorous examination of the literature on a specialized topic in history, to be conducted on an individual basis in consultation with the instructor.

499 (491, 492) Senior Seminar in History (3)

Open only to senior majors in history with consent of instructor. A student may not present more than three hours of seminar for graduation credit. Intensive research on a specialized historical topic culminating in the production of a seminar paper. Subject will be determined by the instructor conducting the section, and may be obtained from him in advance.
Requirements for the Major

B.A. Program
In addition to general degree requirements for a Bachelor of Arts degree, the following courses are required: Math 115, 116, 215, 216, plus 18 more hours of which at least 15 must be numbered above 300 for a total of 34 semester-hours in mathematics.

Those students pursuing certification for secondary school teaching are advised to take Math 200, 221, 232, 266, 268, and 322. A sample schedule including certification requirements is available in the Department.

B.S. Program
In addition to general degree requirements for a Bachelor of Science degree, the following courses are required: Math 115, 116, 215, 216, 315, 316, 321, 322, plus 18 more hours of which at least 12 must be numbered above 300 for a total of 46 semester-hours in mathematics.

The science requirement may be fulfilled by one of the following four options: Phys 113, 114, 213, 214, 215, 216; Chemistry: four semesters excluding Chem 103, and 104, and 105; Biology: four semesters excluding Biol 103, 104, 124, 125, 185, 211, 225, and 140; Chem 111-112 and Biol 113, 114.

The Department of Mathematics strongly recommends that a two-year proficiency in either French, German, or Russian be demonstrated by each student pursuing a Bachelor of Science in Mathematics.

Math 113, 114, 213, 214 are not recommended for mathematics majors. Math 103, 104, 106, 107, 108, 252, 254, 255, and 261 do not count toward satisfying the requirements for a major in mathematics. Students may not duplicate equivalent courses in the 113 and 115 sequence.

For Non-Majors
Designed for the students in the social and behavioral sciences are Math 103, 104, 107, 108, 261, and 268. We advise every liberal arts major to take either Math 106 or the sequence 103, 104, and possibly 261. Students in the natural sciences who plan to do graduate work are advised to add to their basic calculus sequence from Math 266, 268, 313, 314, 351, 352, 382, 443, 444, 446, 447. Students pursuing certification for elementary school teaching are advised to take Math 103, 104, 106, 113, 114, 200, 261, 268. Math 103 and Math 107 as well as Math 261 and 266 cannot be duplicated for credit.
### Sample Schedule for B.A. Mathematics Majors

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<tr>
<th>First Semester</th>
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<tbody>
<tr>
<td>Engl 101</td>
<td>Fine Arts</td>
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<tr>
<td>FrLn 151</td>
<td>Math 321</td>
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<td>Math 115</td>
<td>Math 315</td>
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<tr>
<td>Econ 101</td>
<td>Elective (non-science)</td>
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<td>Soci., psych., or anath.</td>
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<th>Second Semester</th>
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<td>Engl 102</td>
<td>Philosophy or religion</td>
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<tr>
<td>FrLn 152</td>
<td>Math 322</td>
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<tr>
<td>Math 116</td>
<td>Math 316</td>
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<td>Econ 102</td>
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<td>Soci., psych., or anath.</td>
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<th>Third Semester</th>
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<tbody>
<tr>
<td>English Literature</td>
<td>Electives</td>
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<tr>
<td>FrLn 251</td>
<td>Math 300-400 level</td>
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<td>Math 215</td>
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<td>Natural Science</td>
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<td>English Literature</td>
<td>Electives</td>
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<td>Math 216</td>
<td>Math 400 level</td>
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<td>Natural Science</td>
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<td>Speech</td>
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### Sample Schedule for B.S. Mathematics Majors

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<tbody>
<tr>
<td>Natural Science</td>
<td>Math 315</td>
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<tr>
<td>Math 115</td>
<td>Math 321</td>
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<tr>
<td>Engl 101</td>
<td>Elective (non-science)</td>
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<tr>
<td>FrLn 151</td>
<td>Electives</td>
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<td>13-15</td>
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<td>Math 116</td>
<td>Math 322</td>
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<td>Engl 102</td>
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<td>FrLn 152</td>
<td>Electives</td>
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<tr>
<td>Natural Science</td>
<td>Math 351</td>
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<tr>
<td>Math 116</td>
<td>Math 400 level</td>
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<tr>
<td>English Literature</td>
<td>Math 400 level</td>
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<tr>
<td>FrLn 251</td>
<td>Electives</td>
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<th>Fourth Semester</th>
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<tbody>
<tr>
<td>Natural Science</td>
<td>Math 352 or 382</td>
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<tr>
<td>Math 216</td>
<td>Math 400 level</td>
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<tr>
<td>English Literature</td>
<td>Elective</td>
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<tr>
<td>Math 200</td>
<td>Elective (non-science)</td>
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### Mathematics Courses

In exceptional cases the prerequisite for a course above the calculus sequence may be waived at the discretion of the instructor.

**101 Algebra and Elementary Functions**
- Meets three hours per week. No degree credit is given; however, tuition and fees are charged for three hours. Basic algebra manipulations. Linear equations and graphing. A study of the properties of polynomial, logarithmic, exponential, trigonometric functions.

**103 Finite Mathematics (3)**
- Elementary set theory, probability, and statistics.

**104 Finite Mathematics (3)**
- **Prerequisite:** Math 103. Matrix algebra, linear programming, Markov chains and Game theory. Applications.

**106 Concepts of Mathematics (3)**
- Important ideas in mathematics and their development.

**107 Mathematics of Management (3)**
- Linear inequalities and programming, polynomial, exponential and logarithm functions, graphing, probability, matrix algebra.

**108 Mathematics of Management (3)**
- **Prerequisite:** Math 107. Elementary differential and integral calculus.

**113, 114, 213, 214 Analytic Geometry and Calculus, I, II, III, IV (4, 4, 3, 3)**
- Must be taken in sequence. Functions, limits, the derivative, maximum and minimum problems, the integral, transcendental functions, applications. Techniques of integration, vectors and analytic geometry, differentiation of functions of several variables. Linear algebra and applications, vector differential calculus, multiple integrals and infinite series. Differential equations.

- Must be taken in sequence. Analytic geometry, functions, differentiation and integration in several dimensions, infinite series, differential equations.

**200 Foundations of Mathematics (3)**
- **Prerequisite:** Math 116. Real numbers, axiom systems, naive set theory, cardinal and ordinal numbers.

**221 Number Theory (3)**
- **Prerequisite:** Math 116: Prime numbers, factorization, congruences, Diophantine equations.

**232 Geometry (3)**
- **Prerequisite:** Six semester-hours in mathematics. Fundamental concepts of incidence. Axioms of Euclidean geometry and the resulting theory, axioms and development of non-Euclidean and projective geometry.

**252 Introductory Statistics (2)**
- An introduction to the underlying principles and methods of elementary statistics. The course will emphasize an understanding of statistical techniques, how to apply them, and when to apply them.

**254 Applications of Statistics in Health Care (1)**
- **Prerequisite or corequisite:** Math 252. An introduction to the problems of data gathering and evaluation in the area of health care information. There will be some use of calculators as special projects will be assigned and existing reports in the area of health care will be evaluated and criticized.

**255 Applications of Statistics in Public Administration (1)**
- **Prerequisite or corequisite:** Math 252. An introduction to the problems of data gathering and statistical evaluation in the area of public administration. There will be some use of calculators as special projects will be assigned and existing reports in the area of public administration will be evaluated and criticized.

**256 Applications of Statistics in Geography (1)**
- **Prerequisite:** Math 252 or equivalent. An introduction to the problems of data gathering and evaluation in the area of geography. There will be some use of calculators as special projects will be assigned and existing reports in the area of geography will be evaluated and criticized.

**261 Introduction to Computers (2)**
- **Prerequisite:** Three semester hours in mathematics. An introduction to the use of a computer, discussion of the basic underlying concepts, the study of computer languages and social scientific applications of computing.

**266 Introduction to Computer Science (2)**
- **Prerequisite:** Math 114 or 116. Study of a computer system and its logic. Flow charts. A study of Fortran language, basic programming and its application to various problems in mathematics and the physical sciences.
268 Computational Models and Problem Solving (3)
Prerequisite: A knowledge of a scientific programming language. An introduction to various computer applications involving numerical analysis, operations research and data processing. The construction and interpretation of models drawn from the biological, behavioral and physical science.

313, 314 Introduction to Applied Mathematics (3, 3)
Prerequisite: Math 214 or 216. Euclidean spaces. Fourier and orthogonal series, special functions, boundary-value problems, partial differential equations, special functions.

315, 316 Advanced Calculus (3, 3)
Prerequisite: Math 216. Elementary topology, metric spaces, limits, continuity, differentiation, integration, and series. Functions of several variables.

321 Abstract Algebra (3)
Prerequisite: Math 215. Theory of groups, rings, fields.

322 Linear Algebra (3)
Prerequisite: Math 215. Vector spaces, linear independence, bases, linear transformations, matrix algebra, inner product, special topics.

351 Probability (3)
Prerequisite: Math 213 or 215. Random variables, probability functions, special distributions, limit theorems.

352 Statistics (3)
Prerequisite: Math 351. Estimation, decision theory, testing hypothesis, correlation, linear models and design.

Mathematics for the Elementary School I, II
(See GHS 371, 372 listing under the Department of General Studies.)

Consumer Mathematics
(See GHS 373 listing under the Department of General Studies.)

382 Introduction to Stochastic Processes (3)
Prerequisite: Math 315 or Math 313 and Math 351. General notion of stochastic processes, finite and infinite Markov chains, discrete and continuous Markov processes, stationary processes, random walk problems, birth and death processes, waiting line and serving problems, Brownian motion.

391, 392 Reading and Problems (1-3, 1-3)
Enrollment restricted to mathematics majors. Independent study in mathematics. Must be arranged with instructor previous to registration.

411 Functions of a Complex Variable (3)
Prerequisite: Math 214 or 216. Analytic functions, contour integration, residues, and applications to such topics as integral transforms, generalized functions and boundary value problems.

431 Topology (3)
Prerequisites: Math 216 and six hours of mathematics at or above the 300-level. Metric spaces, topological spaces, compactness, connectedness.

443 Deterministic Models in Operations Research I (3)
Prerequisite: Math 322 or equivalent. Theory and applications of linear programming. Detailed development of the simplex algorithm and its variants, duality theory, the dual and primal-dual algorithms, post-optimality analysis, parametric programming, goal programming. Applications to economics, game theory, and management problems in industry, government, and the environment.

444 Deterministic Models in Operations Research II (3)
Prerequisite: Math 443 or equivalent. The transportation and assignment problems and variations. Network flow problems: to include maximal flow, minimal cost flow, shortest path, critical path (PERT), supply-demand, minimal spanning tree, and trans-shipment problems. Introduction to dynamic programming.

446, 447 Numerical Analysis and Digital Computation (3, 3)
Prerequisite: Math 216 and a knowledge of a scientific programming language. Numerical solutions of ordinary and partial differential equations, numerical differentiation and integration, significant figures, errors. Formulation of numerical problems for solution on digital computers.
Requirements for Major in Philosophy

The degree program in philosophy is designed to meet the needs of students with various interests and career goals. Major concentrations are available for students who wish (a) to pursue graduate studies in philosophy; (b) to emphasize philosophy in acquiring a broad liberal arts education; (c) to prepare for certain professions such as law, the ministry, government service; or (d) to complement other interests by taking a double major in philosophy and some related field of study. Students who plan to major in philosophy for any of these reasons should read carefully the following paragraph and, with the assistance of their advisers, plan a course of study that is most appropriate to their interests.

In addition to general requirements for a Bachelor of Arts degree, philosophy majors must complete at least 30 semester hours in philosophy (exclusive of Phil 100—Introduction to Philosophy) including: History of Western Philosophy (both semesters) and either Logic or Symbolic Logic. At least 18 semester hours which are credited toward the major must be courses at the 300 level or above, including six hours at the 400 level. For those students who plan to pursue graduate studies in philosophy, the following courses are recommended: Ethics or Social and Political Philosophy; Metaphysics; Philosophy of Mind or Theory of Knowledge; Twentieth Century Analytic Philosophy; Contemporary Continental Thought (Existentialism and Phenomenology).

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Sample Schedule for Philosophy Majors

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<tr>
<th>First Semester</th>
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<tbody>
<tr>
<td>Natural Science</td>
<td>Social Sciences</td>
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<tr>
<td>English Composition</td>
<td>(Group A or B)</td>
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<tr>
<td>Foreign Language</td>
<td>Non-Western Culture</td>
</tr>
<tr>
<td>Phil 173 or 211</td>
<td>Phil 332</td>
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<td>Philosophy Electives</td>
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<tr>
<td>Second Semester</td>
<td>Sixth Semester</td>
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<tr>
<td>Natural Science</td>
<td>Social Sciences</td>
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<tr>
<td>English Composition</td>
<td>(Group A or B)</td>
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<tr>
<td>Foreign Language</td>
<td>Phil 336 or 337</td>
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<tr>
<td>Phil 251 or 373 or 374</td>
<td>Philosophy Electives</td>
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<tr>
<td>Soph 100, 110, 120, or 130</td>
<td>Non- Philosophy Elective</td>
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<th>Third Semester</th>
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<tbody>
<tr>
<td>Literature</td>
<td>Phil 421 (423)</td>
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<td>Social Sciences</td>
<td>Fine Arts</td>
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<td>Literature</td>
<td>Phil 422 (424) or 425</td>
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<td>Social Sciences</td>
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<td>Non-Western Culture</td>
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<td>Phil 232</td>
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Philosophy Courses

100 Introduction to Philosophy (3)  
An introduction to the nature of philosophical reasoning and to some of the main problems of philosophy. May not be counted towards the major in philosophy.

173 Logic (3)  
A study of basic concepts and techniques of deduction, emphasizing the modern treatment of such topics as quantification and rules of inference, but with some study of the classical treatment as well. Also studied are basic principles of induction, the informal fallacies, and the uses of logic in everyday life.

211 Social and Political Philosophy (3)  
An examination of the philosophical foundations of some of the major concepts and institutions in social and political thought such as society, the family, education, religion, economics, the state, human rights, freedom, morality, law, authority and civil disobedience. An effort will be made to show how these concepts and institutions reflect various assumptions concerning the nature of man, and how they relate to contemporary social and ideological movements.

212 Alternative Futures for Science and Society (3)  
An inquiry into how the values of freedom and rationality are involved in the ways in which science and technology are being used to meet the urgent problems of our day. Readings are chiefly from contemporary thinkers. This course may not be taken by students who have already taken Phil 413.

231, 232 History of Western Philosophy (3, 3)  

251 Ethics (3)  
A consideration of some of the perennial issues in ethical theory with a view toward comparing and contrasting the handling of these problems in classical, modern, and contemporary thought. This course may not be taken by students who have already taken Phil 151.

254 Contemporary Ethical Problems (3)  
Prerequisite: Phil 251. An examination of some contemporary ethical problems, e.g., homosexuality, abortion, drugs, civil disobedience, capital punishment, the rights of the individual vs. the rights of society, from the point of view of the dominant systems of ethics in use today, e.g., Utilitarianism, Deontology, Self-realization Ethics, Situationism.

273 Introduction to Symbolic Logic (3)  
A study of predicate calculi by means of a step-by-step construction of artificial languages. Topics to be covered include procedures for constructing a calculus, proof techniques, significant properties of predicate calculi (e.g., completeness and consistency), and procedures for recognizing phrases (parsing algorithms).

300 Foundations of European Civilization (3)  
(See EuSt 300 under Department of European Studies). This course cannot be credited toward the major in philosophy.

310 Medicine and Human Values (3)  
Prerequisite: Phil 251 or 254, or permission of instructor. An examination of some of the major moral issues involved in the practice of medicine and arising from research in the life sciences. Examples of topics to be covered in both lecture and discussion are: medical experimentation, eugenics, definition of death, euthanasia, abortion, distribution of scarce resources (e.g., organs and kidney machines), transplants, organ donation and psychiatric medicine.

311 Philosophy of Law (3)  
Prerequisite: Three credits in philosophy. An investigation of the theories of natural law, legal positivism and legal realism as they pertain to some of the central philosophical questions about law, e.g., What is the nature of law? What is a legal system? What is a valid law? What is a good reason for a judicial decision?

313 Philosophy of Religion (3)  
Prerequisite: Three credits in philosophy. A study of classical appeals to philosophy in support of belief in God's existence (Philo, Augustine, Anselm, Aquinas, Descartes), the ideism of Hume and the metaphysical agnosticism of Kant, the concept of religious experience in the philosophies of Hegel, Schleiermacher, and Kierkegaard; the problem of religious language in contemporary empirical philosophy. This course may not be taken by students who have already taken Phil 213.

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http://catalog.gmu.edu
315 Philosophy of History (3)
Prerequisite: Three credits in philosophy. An investigation of the development of the historical consciousness of man. The purpose of this course will be 1) to distinguish the historical from the unhistorical attitudes of human consciousness; and 2) to investigate the various forms of historical consciousness by studying the Greek, Biblical and Secular interpretations of history. This course may not be taken by students who have already taken Phil 215.

331 Philosophy in the United States (3)
Prerequisites: Three credits in philosophy. Selected studies of American philosophers of the nineteenth and early twentieth centuries, such as Emerson, Thoreau, Peirce, James, Royce, Santayana, Dewey, and Whitehead. Emphasis is on their relation to American culture.

332 Twentieth Century Analytic Philosophy (3)
Prerequisite: Three credits in philosophy. Recommended Phil 173 or 232 or 273 or 372. An examination of twentieth-century analytic philosophy. Figures and movements covered will include Moore, Russell, Wittgenstein, logical positivism, and ordinary language philosophy.

334 Latin American Thought (3)
Prerequisite: Three credits in philosophy. Historical sources and present range of Latin American thought. Metaphysical, ethical and aesthetic themes from colonial-period scholasticism to modern personal and national philosophies. Distinguished recent times such as Korn and Romero (Argentina), Farias Brito (Brazil), Varona (Cuba), Caso and Vasconcelos (Mexico), Deustua (Peru), and Vaz Ferreira (Uruguay). The broad spectrum of contemporary thought touching religious, social and political topics.

336, 337 Contemporary Continental Thought: Phenomenology and Existentialism (3, 3)
Prerequisite: Three credits in philosophy. A study of phenomenological and existential thought which demonstrates that the movement is both a criticism of and a continuation of the philosophical outlook developed in modern philosophy beginning with Descartes. Phil 336 focuses on the existentialists' concern with the meaning of being human by exploring the themes of subjectivity, absurdity, and the meaning-giving functions of consciousness. Phil 337 stresses the emergence of new theories of reality as consequences of changing attitudes towards consciousness. Figures to be covered will be selected from the following: Nietzsche, Kierkegaard, Husserl, Buber, Sartre, Marcel, Heidegger, Merleau-Ponty, and selected existential-phenomenological psychoanalysts. The courses need not be taken in sequence.

351, 352, 353, 354 Ethics and Contemporary Political Thought, I, II, III, IV (3, 3, 3, 3)
Prerequisite: Three credits in philosophy. One course in ethics is recommended. Intensive examination of contemporary political thought from the perspective of ethical theory. The course will be offered in alternate semesters in the following sequence: democracy, communism, third world political thought and radical political thought. Need not be taken in sequence.

355 Contemporary Ethical Theory (3)
Prerequisite: Three credits in philosophy. Phil 251 is recommended. An examination of major trends and issues in recent moral philosophy, especially those concerning the foundation of morals, the nature of ethical language, and the problem of freedom of the will. This course may not be taken by students who have already taken Phil 252.

356 Philosophy of Art (3)
Prerequisite: Three credits in philosophy. A critical examination of the basic problems which arise from an inquiry into the meaning and value of art and our response to art. Some problems to be considered are: Can art be defined? What is the nature of an aesthetic experience? What is the role of art in society? Can one justify critical evaluations of works of art?

357 Philosophy of the Social Sciences (3)
Prerequisite: Three credits in philosophy. An inquiry into the philosophical aspects of the scope, methods, and uses of the behavioral and social sciences, with special emphasis on the issues of freedom and values.

371 Philosophy of Natural Science (3)
Prerequisite: Three credits in philosophy. One semester of logic recommended. A study of the aims and methodology of science. Among the questions of concern are what is a theory, what constitutes a good scientific explanation, how are new theoretical terms introduced into the language of science, what grounds are used for comparing rival theories, and is there a special method of scientific discovery.

372 Philosophical Methods (3)
Prerequisite: Three credits in philosophy. A consideration of the question, "What is philosophy?" by examining various philosophical methods. The course will have a two-fold emphasis: (1) to study the internal relationship between a philosopher's method, doctrines and concept of philosophy, and (2) to examine the interrelationship between philosophers, i.e., to indicate how philosophers' criticisms of each other have affected the philosophical enterprise per se. Philosophers studied include Plato, Aristotle, Hume, Kant, Ayer, and Heidegger.

373 Theory of Knowledge (3)
Prerequisite: Three credits in philosophy. Discussion of basic problems concerning the nature of knowledge, with special study of the relation of knowledge to perception, to belief, and to language. This course may not be taken by students who have already taken Phil 171.

374 Philosophy of Mind (3)
Prerequisite: Three credits in philosophy. An investigation of such theories as dualism, behaviorism, materialism, and double-aspect as they pertain to some of the central philosophical questions about mind, e.g., What is mind? What is the relation of mind to body? What is the justification, if any, of our belief in the existence of minds other than our own?

375 Metaphysics (3)
Prerequisite: Three credits in philosophy. A study of some basic problems concerning being in general and the foundations of individual being; traditional treatments of such problems and criticism of the possibility of such knowledge. Selected readings from three or four leading figures such as Plato, Aristotle, Aquinas, Spinoza, Leibniz, Kant, Bradley, Heidegger, and others. This course may not be taken by students who have already taken Phil 271.

421, 422, 423, 424 Seminar (3, 3, 3, 3)
The seminar is ordinarily limited to philosophy majors who have completed nine semester hours of philosophy; but students from the other fields of concentration may be admitted if the topic is sufficiently close to their fields of study. Topics will vary from semester to semester.

425, 426 Independent Study (3, 3)
Prerequisite: Open only to philosophy majors with junior or senior standing and 15 hours of philosophy. Students wishing to undertake Independent Study must petition the department for permission. Individual Study of some philosophical writer, problem, or movement. Student to produce at least one major piece of written work during the semester.

Contemporary European Problems and Values (3)
(See EuSt 450 under Department of European Studies). This course cannot be credited toward the major in philosophy.

http://catalog.gmu.edu
Religion Courses
Courses are listed below in numerical sequence; areas of study may be identified by the second digit of the course numbers as follows:

1: History of Religions
2: Religion and Culture
3: Religious Literature
4: Religious Thought

132 Religion and Modern Man (3)
An introduction to several views of the nature of religion, with particular emphasis given to the religious understanding of man and reality. Its relationship with the modern understanding of man and reality will be explored as expressed in contemporary anthropology, sociology, psychology, philosophy and literature.

211 Religions of the Near East (3)

212 Religions of the Orient (3)

213 Hindu Religion and Philosophy (3)
A study of Hindu religious and philosophical developments from their origins through their formative periods. Emphasis is on tracing the evolution of the six major schools of philosophy, and the worship of Shiva, Vishnu and the Female Power.

231 Religion in America (3)
A survey of the religious heritage in American culture, the growth of denominations and sects; the development of theology and ethics, the interrelationship of religion and the socio-political life, and consideration of the modern scene.

237 Religious Dimensions of Contemporary Dramatic Literature (3)
An examination of contemporary religious thinking through the study of selected modern plays of the Western stage, focusing on such themes as the self, human finitude, loneliness and alienation, love and redemption, personal guilt and social responsibility, suffering and death.

238 Black Religion (3)
An examination of the interrelationship between black religion and culture. The history and interpretation of the black religious experience will be understood as it finds expression through literature and the arts, as well as through contemporary social and political movements. Students who have taken Reli 376 may not take this course.

251 Biblical Studies: The Old Testament (3)
A survey of the development of the Old Testament and intertestamental literature, with attention given to the literary, historical, and theological aspects.

The Graeco-Roman World, Hellenistic and Palestinian Judaism, Dead Sea Scrolls, New Testament origins and teachings, the early Christian Community and its faith.

271 Contemporary Religious Ethics (3)
Prerequisite: Sophomore standing or higher, or permission of instructor. A philosophical examination of some of the major theoretical and practical issues in contemporary Judeo-Christian morality. Among the issues to be studied are the following: the relationship between religious and nonreligious ethics, deontological and teleological ethical reasoning, situation ethics, and religious ethical judgments made in such areas as politics, economics, medicine, and sex. Students who have taken Phil 253 may not take this course.

330 Bible Belt Religion in America (3)
Prerequisite: Reli 231 or permission of the instructor. A study of the development of religious life and thought in the popular and provincial folk-religion; emphasis on revivalism; pietyism, perfectionism, other-worldliness, anti-intellectualism; the framework of cultural isolation, theological individualism, and ecclesiastical independence; interrelatation with national and world scene.

331 Civil Religion in America: The Americanization of God (3)
Prerequisite: Reli 231 or permission of the instructor. A consideration of the development of American political, civil, republican, democratic religion, or religious nationalism/Americanism; the concept of America as a New Israel; the idea of Manifest Destiny; the myths, rituals, symbols, and liturgical calendar of the nation; the relation of civil and ecclesial religion; the question of church-state separation; dangers and values in political religion.

332 American Religion in Social Thought and Action (3)
Prerequisite: Reli 231 or permission of instructor. An in-depth study of the churches' involvement in social thought and action. Areas of analysis include: interaction of church and culture; the churches and the nation's wars; slavery, segregation and racial problems; nineteenth century moral crusades; social views of churches, sects, and cults; the economic order and the 'social gospel'; social issues in modern America.

333 Contemporary Religion in America: Diversity and Dissent (3)
The nature of consensus and dissent; analysis of the phenomenon and character of dissent in the categories of denominational (schismatic), intellectual (heretics), and religio-cultural (sects, cults, minority, non-normative groups and movements); the question of dissent being part of American diversity or separate from the mainstream; relationship to religious freedom and pluralism.

334 Religion in the Theatre of Asia (3)
Prerequisite: Reli 212, or permission of instructor. A study of certain Indian and Japanese theatre genres and their dramatic literature in their relation to the great religions of India and Japan.

336 Religion and Art of Asia (3)
Prerequisite: three credits in Religion or Art (recommended Reli 212, 213 or Art 101) or, permission of the instructor. A study of Hindu and Buddhist beliefs expressed in Asian art and architecture. Emphasis is on tracing the development of a set of religious themes from Indian art through South East Asian and Far Eastern art.

372 Death of God Theology (3)
Prerequisite: Junior standing and six hours of religion or philosophy, or permission of instructor. An intensive examination of the "Death of God" movement, conducted in a seminar format. The writings of major participants will be critically studied, including those of Gabriel Vahanian, William Hamilton, Thomas J. J. Altizer, Richard Rubenstein, and Paul van Buren. The reactions and replies to this movement will also be carefully considered.

374 Process Theology (3)
Prerequisite: Junior standing and six hours of religion or philosophy, or permission of instructor. An intensive examination of the philosophical background and the major exponents of Process Theology. The writings of Alfred N. Whitehead, Charles Hartshorne, John Cobb, Henry Wieman, Daniel D. Williams, Norman Pittenger, Schubert Ogden and Pierre Teilhard de Chardin will be included and studied in a seminar format.

http://catalog.gmu.edu
Requirements for the Major

All entering freshmen registering for Phys 113 are required to have a math SAT score of 600 or to take a proficiency examination in elementary algebra and trigonometry. The test will be given before the beginning of the summer, fall, and spring semesters. The exact dates may be found in the Academic Calendar. Any student who fails the examination will be required to take Math 101 or to retake and pass the examination prior to registration in Phys 113.

In addition to general degree requirements, a Bachelor of Science in physics requires the completion of 44 semester-hours in the major and 23 semester-hours in mathematics. The following physics courses are required for the B.S. degree: Phys 113, 114, 213, 214, 215, 216, 303, 305, 306, 402, 403, 405, 407. The remaining nine credits are to be elected from Phys 408, 410, 414, 207, 302, 412 and Astr 328 with at least five credit hours from the first three courses. Included in the 23 semester-hours of mathematics the following courses are required: the two year calculus sequence, Phys 311 or Math 313; Phys 312 or Math 314, plus one course in mathematics at the 300 or 400 level.

The courses labeled Problems in Physics are intended for the outstanding student who can proceed beyond the standard requirements of the other courses in the physics program.

The student electing the Bachelor of Science program in physics will be required to demonstrate a proficiency in computer programming by examination. This examination must be attempted before entering the senior year.

In addition to general degree requirements, a Bachelor of Arts in physics requires the completion of 31 semester-hours in the major and 17 semester-hours of mathematics. The following physics courses are required: Phys 113, 114, 213, 214, 215, 216, 303, 305, 306, 402 and either 407 or 302.

The physics faculty will offer a comprehensive examination each spring which shall be optional for senior physics majors. An outstanding performance on this examination will entitle the student to the following statement on his or her transcript: “Voluntary Comprehensive Examination in Physics Passed with Distinction, (date).”

Students intending to obtain a Secondary Teaching Certificate should consult with the Secondary Education Adviser in the Department.

Physics Courses

The courses Phys 101-102 are recommended for biology and pre-medical students, and those mathematics and chemistry majors who are seeking a Bachelor of Arts degree. The courses Phys 103, 104 are intended for non-science majors. The courses Phys 113, 114, 213, 214, 215, 216 consist of a calculus-based sequence in general physics to be taken by physics and engineering majors and those chemistry and mathematics students who pursue a Bachelor of Science degree. Students may receive credit for only one of the 101-102, or 103-104, or 113-214 sequences.

101-102 Introductory College Physics (4, 4)

A sound background of high school algebra, geometry and trigonometry is essential. A two semester basic physics course with emphasis on those topics of classical and modern physics which are of particular importance to science majors. The principles of mechanics, heat, electricity and magnetism, optics, atomic and
Sample Schedule for Physics Majors

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<thead>
<tr>
<th>First Semester</th>
<th>Fifth Semester</th>
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<tbody>
<tr>
<td>Phys 113</td>
<td>Phys 303</td>
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<td>Math 113</td>
<td>Phys 305</td>
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<td>Chem 111 or Biol 113</td>
<td>Phys 311</td>
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<td>Engl 101</td>
<td>Mathematics elective</td>
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<th>Second Semester</th>
<th>Sixth Semester</th>
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<td>Phys 114</td>
<td>Phys 306</td>
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<td>Math 114</td>
<td>Phys 302</td>
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<td>Chem 112 or Biol 114</td>
<td>Phys 312</td>
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<tr>
<td>Engl 102</td>
<td>Phys 402</td>
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<td>Elective</td>
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<th>Third Semester</th>
<th>Seventh Semester</th>
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<tr>
<td>Phys 213</td>
<td>Phys 403</td>
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<td>Phys 215</td>
<td>Phys 406</td>
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<td>Math 213</td>
<td>Phys 407</td>
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<tr>
<td>English Literature</td>
<td>Mathematics elective</td>
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<td>Elective</td>
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<tr>
<th>Fourth Semester</th>
<th>Eighth Semester</th>
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<tr>
<td>Phys 214</td>
<td>Phys 410</td>
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<td>Phys 216</td>
<td>Phys 414</td>
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<td>Math 214</td>
<td>Phys 408</td>
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<td>English Literature</td>
<td>Phys 412</td>
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<tr>
<td>Math 266</td>
<td>Elective</td>
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<td>13</td>
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nuclear physics. Three hours lecture, three hours laboratory or supervised work.

103, 104 Principles and Development of Modern Physics (4, 4)  
Prerequisite: Phys 103 is prerequisite to Phys 104. A course in physics for non-science majors. Topics include mechanics, relativity, cosmology, atomic physics, electricity and magnetism, nuclear physics and elementary particles. The course places some emphasis on the historical, philosophical and social aspects of modern physics. Three hours lecture, three hours laboratory or supervised work.

113 General Physics I (2)  
Prerequisite: A SAT score over 600 or passing the University's math proficiency test. Corequisite: Math 113. Mechanics. Two hours lecture, one hour recitation.

114 General Physics II (2)  
Prerequisite: Phys 113 and Math 113. Corequisite: Math 114. Mechanics, heat, properties of matter. Two hours lecture, one hour recitation.

201 Energy and Environment (3) (Offered second semester only)  
A study of the basic ideas of science and technology with emphasis on their interaction with our contemporary culture. The course is designed for the science and non-science major who has an interest in our current concerns of energy and environment, and will deal with the origin, forms, uses and distribution of energy and resulting environmental effects. Students who have taken Phys 201 under the old title will be excluded from this course. The course may not be included for credit by physics majors within the 44 hours of physics courses required for the B.S. degree or within the 31 hours of physics courses required for the B.A. degree. Three hours lecture.

203 Introduction to Electronics (3)  
This course is intended for chemistry and life science students and is an introduction to the characteristics and uses of various modern electronic devices, circuits and instruments. Some applications relevant to the student's major will be demonstrated. This course is not open to physics and engineering majors. Two hours lecture. Three hours laboratory.

207 Thermodynamics (3) (Same as Engineering 207)  
Prerequisite: Phys 114 and Math 114. Classical concepts of energy and temperature, basic definitions, first and second laws and their application to engineering systems, properties of pure substances, equations of state, analysis of thermodynamics processes. Three hours lecture.

213 General Physics III (3)  

215 General Physics III (Laboratory) (2)  
Prerequisite: Phys 114 or Phys 102. Corequisite: Phys 213 or permission of instructor. Experiments on mechanics and electricity. Emphasis is given on the use of the oscilloscope. Three laboratory hours.

214 General Physics IV (3)  

216 General Physics IV (Laboratory) (2)  
Prerequisite: Phys 114 or Phys 102. Corequisite: Phys 214 or permission of instructor. Experiments on optics and modern physics. Three laboratory hours.

225 Problems in Physics I (1)  
Prerequisite: Sophomore status and 3.50 average in physics and mathematics. Individual study of physics problems of current interest. This course may be taken a maximum of three times.

302 Electronics (4) (Same as Engr 302)  
Prerequisite: Phys 213, 215 or permission of instructor. A lecture and laboratory course in electronics, design and operational characteristics of power supplies, amplifiers, oscillators, servomechanisms, and digital counting circuits. Six laboratory hours, two hours lecture.

303 Classical Mechanics (3)  
Prerequisite: Phys 214, 216 and Math 214. Motion of a particle in one, two and three dimensions; systems of particles; non-inertial coordinate systems; equations of Lagrange and Hamilton. Three hours lecture.

305 Electromagnetic Theory (3)  

306 Wave Motion and Electromagnetic Radiation (3)  
Prerequisite: Phys 305. Vibrating string, plane waves, interference, diffraction, polarization, electromagnetic waves, dispersion, relativity. Three hours lecture.

311, 312 Methods in Theoretical Physics (3, 3)  
Prerequisite: Phys 214 and Math 214 or 216. Phys 311 or Math 313 is prerequisite for Phys 312. A study of mathematical techniques as applied in classical and modern physics. Ordinary and partial differential equations, special functions, Fourier series, Laplace transforms, integral equations, matrices and complex variables. Three hours lecture.

315 Physics of Musical Sounds (3)  
Prerequisite: Musi 116 or permission of the instructor. A course in the physics of music. Topics include simple harmonic motion, vibration, temperament, the ear, architectural acoustics, sound recording and reproduction. This course may not be included for credit by physics majors within the 44 hours of physics courses required for the B.S. degree, or within the 31 hours of physics courses required for the B.A. degree. Three hours lecture.

326 Problems in Physics II (1)  
Prerequisite: Junior status and 3.25 average in physics and mathematics. Individual study of physics problems of current interest. This course may be taken a maximum of three times.

402, 403 Introduction to Quantum Mechanics and Atomic Physics (3, 3)  
Prerequisite: Phys 303, or permission of instructor. Phys 402 is prerequisite to Phys 403. The experimental basis of quantum mechanics, the wave function, systems in one, two and three dimensions, perturbation theory, the variation principle. Hermitian operators and angular momentum, the theory of scattering. Three hours lecture.
405 Statistical Mechanics and Thermodynamics (3)
Prerequisite: Phys 402. Statistical methods, systems of particles, thermodynamics, macroscopic parameters, the ideal gas, kinetic theory, quantum statistics, and transport processes. Three hours lecture.

407 Senior Laboratory in Modern Physics (3)
Prerequisite: Senior status. Experiments in modern physics involving advanced techniques in electronics, optics, nuclear physics and solid state. Typical experiments: the Franck Hertz Experiment, Hall Effect, electron paramagnetic resonance, Mossbauer Effect. Nine laboratory hours.

408 Senior Research (2 or 3)
Prerequisite: Senior status. The student will work under the guidance of a faculty member on a research project in experimental or theoretical physics. The hours of credit (2 or 3) will be agreed upon in advance by the student and professor.

410 Solid State Physics (3)
Prerequisite: Phys 402. Crystal structures, binding, lattice vibrations, the free electron model, metals, semiconductors, superconductivity, magnetism. Three hours lecture.

412 Computational Physics (3)
Prerequisites: Phys 311 or equivalent and Math 266 or permission of instructor. Solutions to current problems in physics using digital computers. Three hours lecture.

414 Introductory Nuclear Physics (3)
Prerequisite: Phys 402. Alpha, Beta and Gamma emission and internal conversion; interactions of charged particles and Gamma rays with matter; neutrons; nuclear models and reactions; elementary theory of nuclear forces; subnuclear particles. Three hours lecture.

480-481 Special Workshop (4,4)
Prerequisite: Participation in Science Career Facilitation project. This course is part of a project supported by a grant from the National Science Foundation under its Women in Science Program. Dr. Natalia Meshkov is the project director. This is an intensive two semester course in basic physics designed for the participants of the Women in Science Career Facilitation Project. It is intended to review and update their knowledge and bring it up to the level of a physics major at the end of the sophomore year. Topics covered are mechanics, heat and thermodynamics, electricity and magnetism, optics, atomic and nuclear physics. Special emphasis will be placed on conservation laws in physics, thermodynamics, radiation, atomic and nuclear physics. Three hours lecture, three hours laboratory or supervised work.

Astronomy Courses

103 Astronomy (3)
A descriptive introduction to the principles and topics of modern astronomy. The origin of life, the earth, planets and sun, the stars, the galaxies, quasars and the nature of space radiation are discussed. The contemporary ideas of cosmology and the origin of the universe including the pertinent ideas of the general theory of relativity are also considered. Practical experience at the University Observatory will be offered. Three hours lecture.

328 Introduction to Astrophysics (3)

Psychology

Department of Psychology Faculty
Professors: Jordan, Mandes
Associate Professors: Mellinger (Chairman), Altman, Cooper, Moretz, Pasnak, Tyer
Assistant Professors: Allen, Batlis, Buffardi, Crowe, Erdwins, Flinn, Geldzahler, Gessner, Gross, Gurkaynak*, Lehman, Madero, Mendelsohn, Peng, Rugel, Sanford, Small, Smith, Walters*
Lecturers: Bibb, Collins, Granda, Gunzburg, Hammond, Jennings, Keramidas, Kearney, Ladkin, Lampdan, Litman

*On leave of absence, 1976-77 academic year.

Requirements for the Major
B.A. Degree
In addition to general requirements for a Bachelor of Arts degree, students majoring in psychology must complete 30 hours of courses work in psychology. These hours must include Psyc 100, 200, either 360 or 365, and one of the following: Psyc 304, 305, 309, 311, or 316. Hours earned in psychology may be applied to both the general degree requirement and the psychology major.
B.S. Degree.
In addition to general degree requirements, students who wish to graduate with a major in psychology must complete the following requirements:

Psychology: 38 semester-hours including Psyc 100, 200, either 360 or 365, and two of the following: 304, 306, 309, 311, 316, and 323.
Cognate courses: 24 semester-hours
Biol 113, 114
Math 103, 104, or 113, 114 or 115, 116
Math 261, or 266
Nine hours of Anth 114, 232, Biol 225 or any sociology courses

Students are also required to construct with their advisers a program of courses in psychology and in a cognate area; the four cognate areas are: social, developmental, experimental and physiological. This program will then be submitted for approval to a B.S. Degree Review Committee appointed by the Psychology Department. For information concerning cognate areas and specific courses within each cognate, students should contact the Psychology Department.

Students planning to go to graduate school should ascertain whether the school they plan to attend has a foreign language requirement. If there is one, the student should select foreign language courses as electives.

B.A. and B.S. Degrees
At least 18 hours which are credited toward the major must be completed at the 300 level or above. A student intending to major in psychology should take Psyc 200 as early as possible in the program since it is a prerequisite to several other courses. Students interested in clinical psychology should take Psyc 220 as early as possible because it is a prerequisite to many clinical psychology courses. In addition, it is recommended that the student planning to pursue graduate study in psychology take Psyc 320, 371, 372, 373 and Math 261 or 266. Students who expect to go on to graduate school in experimental psychology are advised to take Psyc 207 as well as the required four hour experimental course. Working knowledge of computers is also recommended.

Areas in psychology may be located by the last two digits of each course number (experimental 00, developmental 10, clinical 20, industrial-social 30, and general 60). It is recommended that students with a serious interest in psychology distribute courses over as many areas as possible in order to get a comprehensive picture of modern psychology.

Students interested in developing technical skills in the application of psychology at the paraprofessional level may wish to participate in the psychological technician sequence. The purpose of this sequence is to provide students with technical expertise for use in human service employment settings at the paraprofessional level. The psychological technician sequence includes Psyc 322, 325, 326, 421, 422 and 423. Satisfactory completion of Psyc 325 and 326 and permission of the Clinical Review Committee are prerequisites for Psyc 421 and 422. Other courses relevant to the sequence include Psyc 210, 215, 216, 310, 320, 321, 414, and 420. No more than six credit hours of Psyc 326, 421 and 422 may be used to satisfy either the 30-hour psychology requirement for the B.A. degree, the 38-hour psychology requirement for the B.S. degree or the 18-hour requirement in psychology at the 300 level or above.

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### Sample Schedule for B.A. Psychology Majors

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<tr>
<th>Semester</th>
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<tr>
<td>First</td>
<td>Engl 101</td>
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<td>Foreign Language</td>
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<td></td>
<td>Psyc 100</td>
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### Sample Schedule for B.S. Psychology Majors

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<tr>
<th>Semester</th>
<th>Courses</th>
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<tbody>
<tr>
<td>First</td>
<td>Engl 101</td>
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<tr>
<td></td>
<td>Psyc 100</td>
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<tr>
<td></td>
<td>Biol 113</td>
<td>4</td>
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<tr>
<td></td>
<td>Sociology</td>
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<td></td>
<td>Elective</td>
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| Second         | Engl 102                                     | 3       |
|                | Sociology                                    | 3       |
|                | Cognate                                      | 3       |
|                | Elective                                     | 3       |
|                |                                               | 16      |

| Third          | English (200 level)                          | 3       |
|                | Psyc 200                                     | 4       |
|                | *Math 103, 113, or 115                       | 3-4     |
|                | Psychology                                   | 3-4     |
|                |                                               | 13-15   |

| Fourth         | Engl 102                                     | 3       |
|                | Anthropology                                 | 3       |
|                | *Math 104, 114, or 116                       | 3-4     |
|                | Psychology                                   | 3       |
|                |                                               | 15-16   |

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*Students enrolled in Math 103 and 104 will require one additional course to total 120 hours.*
Psychology Courses

100 Basic Concepts in Psychology (3)
Prerequisite to all other courses in psychology. An introduction to psychology as a scientific discipline including an examination of the concepts and methods in learning, motivation, development, personality and measurement.

200 Analysis and Interpretation of Psychological Data (4)
Prerequisite: Psyc 100 or permission of instructor. Descriptive and inferential statistics in design, analysis and interpretation of psychological research with practical application using calculators. Three classroom and two laboratory hours.

207 General Experimental Psychology (3)
Prerequisite: Psyc 100 or permission of instructor. A survey of animal and human learning, perception and motivation.

210 Child Psychology (3)
Prerequisite: Psyc 100 or permission of instructor. A study of the process of human psychological development from conception to adolescence including such topics as genetic factors, emotional and intellectual growth and environmental influences.

215 Adolescent Psychology (3)
Prerequisite: Psyc 100 or permission of instructor. A study of the biological and cultural changes accompanying adolescence including the effect of these changes on emotional, intellectual, and social development.

216 Psychology of Aging (3)
Prerequisite: Psyc 100 or permission of instructor. An investigation of the influence of physiological, psychological, and social factors on mature and aged persons. Students who have taken Psyc 314 may not take this course.

220 Personality Theory (3)
Prerequisite: Psyc 100 or permission of instructor. An introduction to classical and contemporary theories of personality and a comparative evaluation of major theories in terms of relevant research studies.

230 Industrial Psychology (3)
Prerequisite: Psyc 100 or permission of instructor. An examination of the application of psychological principles and methods to problems commonly encountered in business and industry.

231 Social Psychology (3)
Prerequisite: Psyc 100 or permission of instructor. A study of men’s development in a social matrix including such topics as socialization, cultural behavior, group norms and attitude formation.

304 Principles of Animal Learning (4)
Prerequisite: Psyc 200 or permission of instructor. Experimental methodology within the context of the basic principles of animal learning including such topics as classical and instrumental conditioning and discrimination learning. Three classroom and two laboratory hours.

305 Human Learning and Memory (4)
Prerequisite: Psyc 200 or permission of instructor. Experimental methodology within the context of discrimination, concept formation, verbal learning, psycholinguistics and memory. Three classroom and two laboratory hours.

309 Perception (4)
Prerequisite: Psyc 200 or permission of instructor. Experimental methodology within the context of perceptual psychology including such topics as psychophysics, perceptual organization and constancies. Three classroom and two laboratory hours.

310 Developmental Psychology (3)
Prerequisite: Psyc 100 or permission of instructor. A review of the major developmental theories of man including perspectives of childhood, adolescence, adulthood and old age. This course will not apply as credit hours in the psychology major if students use 210, 215, 216 or 314 for major credit.

311 Comparative Psychology (4)
Prerequisite: Psyc 200 or permission of instructor. Experimental methodology within the context of a study of behavior through the phylogenetic continuum including such topics as species-specific behavior, early experience and learning. Three classroom and two laboratory hours.

316 Motivation (4)
Prerequisite: Psyc 200 or permission of instructor. Experimental methodology within the context of the concepts and principles which determine human and animal motivation including such topics as instincts and drives. Three classroom and two laboratory hours.

320 Psychological Tests and Measurements (4)
Prerequisite: Psyc 200 or permission of instructor. An examination and application of the principles underlying the theory, interpretation and administration of psychological tests including a study of tests of intelligence, achievement and ability. Three classroom and two laboratory hours.

321 Counseling Psychology (3)
Prerequisite: Psyc 325 or permission of instructor. A review of the theories and methods in psychological counseling.

322 Behavior Modification (3)
Prerequisite: Psyc 207 or Psyc 220 or permission of instructor. An examination of experimental principles of human and animal learning within the theoretical framework of applied behavior analysis; which will include the design, implementation, and evaluation of operant intervention programs across a wide variety of human situations; and the opportunity to apply this approach in a practicum setting. Students who have taken Psyc 222 cannot take this course.

323 Clinical and Social Psychology Research Techniques (4)
Prerequisite: Psyc 200 or permission of instructor. A review and application of some research techniques including interviewing, survey analysis and process analysis. Three classroom and two laboratory hours.

325 Abnormal Psychology (3)
Prerequisite: Psyc 220 or permission of instructor. A study of the development of abnormal behavior patterns including such topics as methods of diagnosis and prevention of serious mental disorders such as psychosomatic disorders, psychoses, character disorders and mental retardation.

326 Therapeutic Communication Skills (3)
Prerequisite: Psyc 325 or permission of instructor. An introduction to the understanding and use of basic therapeutic communication skills employed in clinical and counseling psychology.

331 Ecological Psychology (3)
Prerequisite: Psyc 200 and one experimental course or permission of instructor. Theory and methods of ecological psychology encompassing man-environment relationships including the assessment of the coercive aspects of the total environment.
360 Theories and Systems of Psychology (3)
Prerequisite: Nine hours of psychology or permission of instructor.
A review of various systems and theories that have played a role in contemporary psychology including association theory, structuralism, behaviorism and theories of personality.

361 Thinking and Problem Solving (3)
Prerequisite: Psyc 100 or permission of instructor. A study of the major psychological theories of thinking and problem solving including a critical review of the experimental and empirical evidence relating to them.

362 Psychology of Women (3)
Prerequisite: Psyc 100, Biol 103, 104 or equivalent, or permission of instructor. An examination of the behavior and attitudes of women; the influence of sex chromosomes and sex hormones on behavior; the influence of culture on sex-role differentiation; theories of sex role development.

365 History of Psychology (3)
Prerequisite: Nine hours of psychology or permission of instructor. A survey of man's attempts to understand himself systematically from the classical age to the present century including various models of man. Students who have taken Psyc 260 may not take this course.

371 Physiological Psychology: Sensory Psychology (3)
Prerequisite: Psyc 100, Biol 103, 104, or equivalent, or permission or instructor. A review of the sensory systems in animals and man including sensory physiology, psychophysics, information processing in the central nervous system and experimental psychology. Students who have taken Psyc 205 cannot take this course.

372 Physiological Psychology: Neuropsychology (3)
Prerequisites: Pre- or co-requisite: Psyc 373 or equivalent. A review of the role of the central nervous system in behavior including neuroanatomy, elementary biophysics, synaptic behavior and brain mechanisms in motivation, learning and memory. Students who have taken Psyc 206 cannot take this course.

373 Physiological Psychology Laboratory (1)
Prerequisite: Biol 103, 104 or Biol 113, 114 or equivalent or consent of instructor. Functional anatomy and physiology of the brain, including dissection of brain and eye, demonstration and practice in techniques of studying brain mechanisms of behavior. It is advisable that psychology majors take Psyc 372 concurrently with Psyc 373.

400 Laboratory Methods and Instrumentation in Experimental Psychology (1)
Prerequisite: A laboratory course in experimental psychology. Supervised experience in working with the methods, instrumentation, and techniques encountered in the modern psychological laboratory. Topics covered include electro-mechanical programming, psycho-physiological measurement techniques and basic electrical circuits.

411 Infant Development (3)
Prerequisite: Psyc 210 or permission of instructor. An examination of current issues, research methods and clinical evaluation techniques in the field of infant development.

412 Perceptual and Cognitive Development (3)
Prerequisite: Psyc 210 or permission of instructor. A review of the theories of perceptual and cognitive development including the works of Piaget, Gibson, Bruner, Sigel and Hunt.

414 Behavior Disorders of Childhood (3)
Prerequisite: Psyc 210 and 325 or permission of instructor. A review of the theories, methods, and research dealing with emotional and behavioral disorders of children.

420 Clinical Methods in Psychology (3)
Prerequisite: Psyc 325 or permission of instructor. The historical and empirical foundations of clinical psychology including a review of current clinical practice.

421, 422 Practicum in Clinical Psychology (3, 3)
Prerequisite: Psyc 325 and Psyc 326 and permission of the Clinical Review Committee. Supervised experience in the application of psychological principles requiring work in a non-classroom situation.

423 Group Psychotherapy Techniques (3)
Prerequisite: Psyc 220 or permission of instructor. Review of theory and methods of group therapy with emphasis on humanistic and interpersonal approaches including applications to family therapy, alcoholism and drug abuse.

430 Human Factors Engineering (3)
Prerequisite: Psyc 230 or an experimental laboratory course or permission of instructor. An investigation of the complex man-machine interactions found in industry today. Extensive empirical research findings will be examined.

432 Seminar in Organizational Psychology (3)
Prerequisite: Psyc 230 or permission of instructor. A review of the theories and research relating to such topics as job satisfaction and motivation.

433 Evaluative Research in Psychology (3)
Prerequisite: Psyc 200 or permission of instructor. An examination of the research techniques which are specifically designed for the evaluation of the human effectiveness of organizations and mental health programs.

460 Independent Study in Psychology (1-3)
Prerequisite: A required experimental course and a research proposal approved in advance by the instructor and Department Chairman. An investigation of a psychological problem according to individual interest with stress on research methods. By permission of the Department Chairman, a student may take a second semester for a maximum of six hours credit. The additional three hours may not be applied toward the basic 30 hours for a psychology major or the 18 hours required in upper division courses.

461, 462 Special Topics (3, 3)
Prerequisite: Permission of instructor. Selected topics reflecting interest in specialized areas to be announced in advance.

470 Drugs, Hormones, and Behavior (3)
Prerequisite: Psyc 372 or equivalent or permission of instructor. An overview of the chemistry of behavior, including neurotransmitters, mechanisms of action of therapeutic drugs such as antidepressants, actions of hallucinogens and other psychoactive drugs, chemical theories of memory, and effects of hormones on behavior.

482/Engl 482 Survey of Psycholinguistics (3)
Prerequisite: Engl 391 or Psyc 305 or permission of instructor. A study of the psychological basis of human language acquisition and competence, including research on aphasia, association, autism, second language learning, grammatical transformations, and the psychological reality of transformational rules.

97
Public Affairs

Department of Public Affairs Faculty
Professor: Early (Chairman)
Associate Professors: Khoury, Mika
Assistant Professors: Andrews, Fonseca, Godbold, Knight, Nicholson*, Oyebanji**
Acting Assistant Professor: Hegedus
Instructor: Thompson
Lecturers: Brown, Cox, Damico, Gall, Gladstone, Gobrecht, Hung, O'Kelley, Jentsch, Miller, Neal, Rusch, Smith, Tilley, Weithoner

*On leave of absence, 1976-77 academic year.
**Fall semester, 1976 only.

Requirements for the Major in Geography
To be eligible to graduate with a B.A., with a major in geography, a student must complete at least 120 semester-hours of work and satisfy all requirements for the Bachelor of Arts degree prescribed by the University.

A candidate for the degree must present 33 semester-hours of credit in geography to include Geog 101, 102, 103, 301, 305, 410, 415 and Math 252 and 256 or equivalent statistics courses.

Students pursuing certification for secondary school teaching are advised to take Geog 101, 102, 103, 219 and 420. They must present a minimum of 131 hours for graduation in order to include nine hours of credit for practice teaching and should consult with the secondary education adviser in the Department of Public Affairs in the freshman year, if possible. A planned, approved program must be followed.

Geography Courses
101 Major World Regions (3)
A geographic analysis of the patterns, problems, and prospects of the world's principal human-geographic regions, including Anglo-America, Europe, Far East, Latin America, and the Soviet Union. Emphasis is upon the causal factors of areal differentiation and the role geographic differences play in the interpretation of the current world scene.

102 Physical Geography (3)
Interrelated processes affecting the global distribution and character of climate, soils, vegetation, hydrography, and landforms; elements of mapping.

103 Cultural Geography (3)
A study of relationships between geography and human population dispersion, cultural patterns, and economic development.

201 Geography of Latin America (3)
A regional survey of physical resources, population, cultural characteristics, and economic activities in Latin America.

206 Climatology (3)
Climatic elements and their controls; analysis of world climatic patterns.

215 Geography of the United States and Canada (3)
A study of the great diversity of physical and cultural landscapes in the United States and Canada, emphasizing the role of the environment in shaping patterns of demographic distribution and economic activity.

220 Geography of Europe (3)
A study of the environmental, economic, social and political factors influencing the regional structure of Europe. The effect of the new European economic and social communities (E.E.C., COMECON) upon the urban network, the regions and their relationships will be emphasized.

230 Geography of the Soviet Union (3)
Analysis of the geographic factors involved in the history, economic development, and geopolitical situation of the Soviet Union. Ethnic diversity and population problems in a multi-national state will be stressed.

301 Political Geography (3)
Prerequisite: Sophomore standing or higher. An analysis of the geographical factors involved in the political division of the earth's surface. The course examines the structures and processes involved in the creation of political space at all levels—city, county, state, national and international—and emphasizes interrelations between geographical-political units and problems created by overlapping units.

302 Suburban Geography (3)
Prerequisite: Sophomore standing or higher. An analysis of the spatial aspects of man's social, economic and political activities within suburbia. Suburbanization is viewed both as an independent force and as a component of the larger urbanization process. Northern Virginia will be utilized as a laboratory for suburban geographical study and student-initiated fieldwork projects.
Sample Schedule for Geography Majors

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Fifth Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engl 101</td>
<td>Non-Western course</td>
</tr>
<tr>
<td>Foreign language</td>
<td>Geog 305</td>
</tr>
<tr>
<td>Laboratory science</td>
<td>Geog 301</td>
</tr>
<tr>
<td>Geography</td>
<td>Econ., govt., or hist.</td>
</tr>
<tr>
<td></td>
<td>Elective</td>
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<tr>
<td></td>
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</tr>
<tr>
<td>Second Semester</td>
<td>Sixth Semester</td>
</tr>
<tr>
<td>Engl 102</td>
<td>Non-Western course</td>
</tr>
<tr>
<td>Foreign language</td>
<td>Geog 410</td>
</tr>
<tr>
<td>Laboratory science</td>
<td>Geography</td>
</tr>
<tr>
<td>Geog 102</td>
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<tr>
<td>Elective</td>
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<tr>
<td>Third Semester</td>
<td>Seventh Semester</td>
</tr>
<tr>
<td>Engl 203, 205, or 251</td>
<td>Geog 415</td>
</tr>
<tr>
<td>Foreign language</td>
<td>Geography</td>
</tr>
<tr>
<td>Geog 103</td>
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<tr>
<td>Oral Communication</td>
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<td></td>
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</tr>
<tr>
<td>Fourth Semester</td>
<td>Eighth Semester</td>
</tr>
<tr>
<td>Engl 204, 206, or 252</td>
<td>Mathematics or Logic</td>
</tr>
<tr>
<td>Econ., govt., or hist.</td>
<td>Elective</td>
</tr>
<tr>
<td>Philosophy or religion</td>
<td>Geography</td>
</tr>
<tr>
<td>Statistics</td>
<td></td>
</tr>
<tr>
<td>Geography</td>
<td></td>
</tr>
</tbody>
</table>

303 Conservation of Resources and Environment (3)
Prerequisite: Sophomore standing or higher. An analysis of spatial aspects of world resources and of problems resulting from their unequal distribution or unwise use. Population growth, its implications for resource use, and pollution problems will be stressed.

304 Geography of Population: Patterns and Problems (3)
Prerequisite: Sophomore standing or higher. Study of the spatial distribution of population, its causes and effects, and of the changing patterns resulting from population mobility. Emphasis on spatial characteristics of variables such as age, sex, race, education, and income. Population problems such as crowding and poverty are viewed in their spatial context.

305 Economic Geography (3)
Prerequisite: Sophomore standing or higher. An analysis of the pattern of distribution of world economic activity: the spatial economics behind this pattern and the influence of this distribution upon other spatial systems such as population, urbanization and the physical environment.

399 Selected Topics in Geography (3)
Prerequisite: Open to geography majors and by permission of the instructor to other students. Course content will vary from semester to semester according to the regional or systematic specialty of the faculty member.

402 Urban Geography (3)
Prerequisite: Six hours of geography. An analysis of the structure and internal differentiation of cities. The course offers a variety of perspectives on the nature of cities and the opportunities they provide man in their intensive use of space. Urban problems and alternatives are analyzed in their spatial context.

403 Problems in Environmental Management (3)
Prerequisite: Six hours of geography, including Geog 102. Man's role as steward of the natural environment. Case studies of the impacts of human activities on atmospheric, hydroligic, geomorphic, and biotic processes.

405 Transportation Geography (3)
Prerequisite: Six hours of geography. An analysis of the structure, principles, location and development of world transportation. The course stresses the critical role of transportation in moving people, goods and ideas at the international, national, regional and urban levels.

410 Cartography (3)
Prerequisite: A course in statistics or permission of instructor. Exercises in the gathering, analysis, and graphic presentation of data in a spatial format.

415 Seminar in Geography (3)
Prerequisite: Open to junior or senior geography majors. Offers the student an opportunity to integrate his previous course work into a comprehensive disciplinary framework and to do in-depth study of some particular aspect of geography. The format will vary from semester to semester but will stress field work and readings in the current literature, history, and research techniques of the discipline.

420 Seminar for Teachers of Geography (3)
Prerequisite: Six hours of geography or permission of instructor. The course will focus on problems in teaching geography and on new teaching techniques, as well as current developments in research, methodology, and philosophy in the discipline. The course will be flexible, allowing for shifts in emphasis in different semesters.

499 Independent Study in Geography (1-3)
Prerequisite: Open only to junior and senior geography majors with permission of the Department and the instructor. Individual study of a selected area of geography. A directed research paper will be required.

Requirements for the Major in Government and Politics

B.A. Program in Government and Politics

To be eligible to graduate with a B.A. in government and politics a student must complete at least 120 semester-hours of work and satisfy all requirements for the Bachelor of Arts degree prescribed by the University.

A student who presents 0-8 hours of lower division credit must successfully complete six upper division courses in government and politics; one who presents 9-14 hours of lower division credit must successfully complete five upper division courses in government and politics; one who presents 15-18 hours of lower division courses in government and politics must successfully complete four upper division courses at George Mason University.

However, a student who transfers to the University must earn at this campus at least 12 hours in his major subject by completing courses at the upper division level. Each transfer student, therefore, must successfully complete not fewer than three upper division courses in government and politics.

Students are urged to select government courses so as to diversify their choices and thereby gain introduction to as wide a range of their major subject as they can. Each faculty adviser will identify those non-government electives thought to be especially well related to the major concentration.

Students who are pursuing certification for secondary school teaching are encouraged to take Govt 103, 132, 310, and 330. They must present a minimum of 131 hours for graduation in order to include nine hours of credit for practice teaching and should consult with the Secondary Education adviser in the Department of Public Affairs in the freshman year, if possible. A planned, approved program must be followed.
Sample Schedule for Government and Politics Majors

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>First</td>
<td>Laboratory science</td>
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<tr>
<td></td>
<td>Engl 101</td>
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<tr>
<td></td>
<td>Foreign language</td>
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<tr>
<td></td>
<td>Govt 103</td>
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<td></td>
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<td>14</td>
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<tr>
<td>Second</td>
<td>Laboratory science</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Engl 102</td>
<td>3</td>
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<tr>
<td></td>
<td>Foreign language</td>
<td>4</td>
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<td></td>
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<td>3</td>
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<td>Mathematics or Logic</td>
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<tr>
<td>Third</td>
<td>Engl 203 or 205</td>
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<td>Econ., geog., or hist.</td>
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<td></td>
<td>Foreign language</td>
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<td></td>
<td>Govt 204</td>
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<td></td>
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<td>16</td>
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<tr>
<td>Fourth</td>
<td>Govt 241</td>
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<td>Engl 204 or 206</td>
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<td>Philosophy or religion</td>
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<td>Fifth</td>
<td>Government electives</td>
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<td>Sixth</td>
<td>Government elective</td>
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<td>Electives</td>
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<td>Seventh</td>
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<td>14</td>
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</tbody>
</table>

*This specimen program is based on 12 hours of three semester-hour work earned in government at George Mason University or brought in on transfer. All required foreign language credit is shown as earned at George Mason.

Government and Politics Courses

- **101 Concepts of Democratic Government (1)**
  - See description for Govt 103.

- **102 British-American Democratic Government (2)**
  - See description for Govt 103.

- **103 Introduction to Democratic Government (3)**
  - An analysis and comparison of the American presidential and the British parliamentary forms of democratic government examined in light of basic concepts and institutions of democracy. Subdivided into Govt 101: Concepts of Democratic Government (1) dealing with introductory concepts basic to democracy, and Govt 102: British-American Democratic Government (2) presenting the comparative and analytical phases of the American and British systems. Each may be taken separately. To register for both, enroll in Govt 103.

- **132 Introduction to International Politics (3)**
  - An examination of geographic, demographic, economic, ideological, and other factors which influence foreign policies of states; the methods of conflict and institutions of adjustment extant among states; the limitations and functions of power, diplomacy, and international law and organization.

- **204 American State and Local Government (3)**
  - An introduction to the nature, organization, functions and problems of American state and local governments in their challenging and rapidly changing environment.

- **241 Introduction to Public Administration (3)**
  - Prerequisite: Govt 103 or permission of instructor. An examination of administrative structure and processes. Includes organization theory, administrative behavior, personnel, decision-making, communications, leadership, management, budgetary processes, and administrative responsibility.

- **301 Public Law and the Judicial Process (5)**
  - Prerequisite: Junior or senior standing. An introduction to general jurisprudence and comparative legal systems; analysis of selected aspects of judicial organization and operation, of the role of the judiciary in policy formation, and of selected constitutional principles evolved by the United States Supreme Court.

- **310 Political Dynamics (5)**
  - Prerequisite: Junior or senior standing. An introduction to operating factors in political systems: includes survey of political parties, public opinion, and pressure groups; attitude formation and expression; political participation; voting behavior; minority group politics; political communication.

- **325 Introduction to Public Planning (5)**
  - Prerequisite: Junior or senior standing. A course designed to identify the framework, subject matter, uses, methods, administration, and future of public planning. Some attention will be given to program implementation. Emphasis will be placed upon the local government level. Offered Spring semester only.

- **330 Political Values (5)**
  - Prerequisite: Junior or senior standing. An examination of political values concerning the nature of man, the origin and nature of the state, bases of political obligation, problems of consent, concepts of power, and sources of authority as presented in the works of major writers.

- **341 Administrative Management and Behavior (5)**
  - Prerequisite: Govt 241 and junior or senior standing, or permission of instructor. An examination and study of American governmental administration. Particular attention will be paid to organizational theory and behavior, administrative responsibility, management systems, roles of the bureaucracy, and relationships between the individual and the organization.

- **350 Advanced International Relations (5)**
  - Prerequisite: Govt 132 and junior or senior standing. Advanced inquiry into international relations; organization; law; pacific settlement of disputes; crisis and conflict resolution.

- **415 Government and Politics of Metropolitan Areas (5)**
  - Prerequisite: Govt 204 and junior or senior standing. An examination of the government, politics, and problems of metropolitan centers and surrounding areas.

- **425 Public Policy Making (5)**
  - Prerequisite: Junior or senior standing. An inquiry into practices and processes involved in public policy making: roles of legislators, courts, interest groups, public agencies, political parties, and public relations in policy making. Case studies on politics of policy making.

- **440 Introduction to Administrative Law and Procedures (5)**
  - Prerequisite: Junior or senior standing. An introduction to the law of public office. Offered Fall semester only.

- **445 Administrative Resources Management (5)**
  - Prerequisite: Junior or senior standing. An examination of the concepts, methods and systems employed in the management of resources by governmental administration with primary focus upon that in the United States. Offered Fall semester only.

- **450 Cross-National Political Study (5)**
  - Prerequisite: Junior or senior standing. A study and analysis of political and governmental institutions, values, conditioning factors, behavior patterns, decisional processes, courses and styles of political change, and problems of nation-building based upon an integrative rather than upon a country-by-country approach.

- **460 Foreign Policies and Analysis (5)**
  - Prerequisite: Govt 132 and junior or senior standing or permission of instructor. A course intended to introduce students to foreign policy analysis and to the foreign policies of major world powers, of regional blocs, and of selected nations.

- **480 Internship (2-5)**
  - Open to authorized senior majors only. Contact Department one semester prior to enrollment. Internships are approved work-study programs established by the Department with specific employers. Credit will be fixed to suit each situation as determined by the Department. Offered Spring semester only.
490 Seminar (5)
Prerequisite: A seminar open to senior majors, Department of Public Affairs, and by permission as course enrollment permits to other seniors who have completed not fewer than twelve hours of work in government. May not be repeated. The subject of the seminar will vary from semester to semester according to the specialization of the faculty member in charge. Readings, individual or group projects, and discussions of seminar papers will comprise the content and format.

Requirements for Major in International Studies
B.A. with a Major in International Studies
A student who desires to earn a B.A. with a major in international studies must complete 125 semester-hours of work and satisfy all requirements for the Bachelor of Arts degree prescribed by the University.
Each candidate for the degree must complete:
1. a required core of studies (50-56 hours according to the program needs of the individual candidate);
2. one concentration to be selected according to the student's individual interests from those designated:
   (a) International Politics (44 hours) and five courses in a single regional grouping (15 hours) .......... 59
   OR
   (b) International Economics (45 hours) and five courses in a single regional grouping (15 hours) .......... 60
   OR
   (c) Cross-National Study (27 hours) and six courses in one and five courses in a second (33 hours)
   regional grouping ........................................... 60

Available regional groupings encompass the Middle East and Africa, Europe, Asia, and Latin America.
Students who major in international studies are urged to familiarize themselves with the Bachelor of Arts degree requirements as set out in this Catalog. These requirements can be fulfilled by careful selection of courses chosen to meet the following mandatory core of this program:

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Composition</td>
<td>6</td>
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<tr>
<td>Oral Communication</td>
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</tr>
<tr>
<td>Literature</td>
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<td>Econ 103: Contemporary Economic Principles and Issues I</td>
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<tr>
<td>Econ 104: Contemporary Economic Principles and Issues II</td>
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| Soci 101: Introductory Sociology (3) and either
  * Anth 114: Cultural Anthropology (3),
  * Anth 232: Cultures in Comparative Perspective (3) | 6 |
| Art or music (3) and religion or philosophy (3) | 6 |
| Govt 132: Introduction to International Politics (3) | 3 |
| Hist 122: Development of Modern America (3) and either
  * Hist 242: A Survey of East Asian Civilization (3)
  * Hist 262: A Survey of African Civilization (3)
  * Hist 272: History of Latin America (3)
  * Hist 282: Survey of Middle Eastern Civilization (3) or
  * Hist 309: Contemporary Europe (3) | 6 |
| Science with lab                | 8     |
| Foreign language: 3 hours of conversation above 251 course level | 0-15 |
| Logic or mathematics            | 3     |
| Total                           | 53-68 |

* Meet non-Western requirement.

Lists of courses approved for inclusion in the concentrations and the regional groupings making up this program are available in the Department of Public Affairs.

Sample Schedule for International Studies Majors

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<th>Courses</th>
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<td>Govt 450 5</td>
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<td>Hist 433 3</td>
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<td>Elective 4</td>
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<tr>
<td>Eighth Semester</td>
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<td>Govt 460 5</td>
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<td>Mathematics or Logic 3</td>
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Sample Schedule for International Studies Majors
Requirements for a Major in Public Administration
B.S. with a Major in Public Administration

The program of study leading to the degree of B.S. with a major in public administration comprises a core of work in government and politics and quantitative and distributive requirements for appropriate courses in other subjects of the curriculum. To complete this course of study, a student must earn 125 semester-hours of credit and meet general degree requirements set for the B.S. degree by work falling within the following pattern:

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<tr>
<th>Composition and Literature</th>
<th>Hours</th>
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<tr>
<td>Core Requirements</td>
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<td>Govt 103, 204, 241, 325, 341, 415, 440, 445, and 1 elective in government from among 310, 330, 425, or 480</td>
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<tr>
<td>Econ 103, 104, and six hours to be elected from 150, 306, 310, 311, 330 and 350</td>
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<td>Supporting Requirements</td>
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<tr>
<td>Statistics</td>
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<tr>
<td>BuAd 261 and 262 or Soci 221 or Math 252 and 255.</td>
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<tr>
<td>Accounting</td>
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<tr>
<td>BuAd 201</td>
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<tr>
<td>Computers</td>
<td>6-8</td>
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<tr>
<td>Math 107, 261 and BuAd 214 or BuAd 212 and BuAd 214.</td>
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<tr>
<td>Communications</td>
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</tr>
<tr>
<td>BuAd 232, Spch 130, Engl 309 or 310.</td>
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<tr>
<td>Psych 100 and one course from Psych 220, 230 and 231.</td>
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<tr>
<td>Soci 101 and 203 or 332.</td>
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Sample Schedule for Public Administration Majors

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<td>Govt 325</td>
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<tr>
<td>Econ 103</td>
<td>Govt 341</td>
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<th>Second Semester</th>
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<td>Engl 102</td>
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<td>Govt 204</td>
<td>Govt 415</td>
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<td>Soci 203 or 332</td>
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<td>Econ 104</td>
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<table>
<thead>
<tr>
<th>Third Semester</th>
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<tr>
<td>Engl 203, 205 or 251</td>
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<td>Econ (listed option)</td>
<td>Engl 309 or 310</td>
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<td>Math 252</td>
<td>Govt 440</td>
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<td>Math 255</td>
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<td>Psych 100</td>
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<td>BuAd 232</td>
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<td>Psych 220, 230 or 231</td>
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<td>Spch 130</td>
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</tbody>
</table>

Department of Sociology Faculty

Associate Professors: Borkman, Hughes, MacConkey, Morgan, Tanvi

Assistant Professors: Hickey (Acting Chairman), Baldwin, DuMez*, Hardwick, Jhirad-Reich, Kolker, Krech, McGuire, Millar, Rader, Raskin, Rich, Turner, Williams

Lecturers: Brooks, Brown, Carr, Couch, De Vaul, Greenhouse, Harris, Wyatt

*On leave of absence, 1976-77 academic year.
Requirements for the Major in Sociology

Students majoring in sociology must satisfy general requirements set for the Bachelor of Arts degree at George Mason University.

In addition to the general requirements for a B.A. degree thirty-three hours of work in sociology are required. The student must include Soci 101, 221, 303, and 411, and nine additional hours at the 300 and 400 level. Anth 232 may apply toward the thirty-three hour sociology requirement.

In addition to the above requirements for majors, students are advised to elect other relevant anthropology courses as well as courses in biology, philosophy, psychology and government and politics.

Note: Students pursuing certification for secondary education in sociology are asked to consult with the Department of Sociology. The student’s academic adviser will be a member of the faculty of the Department of Education.

Sociology Courses

101 Introductory Sociology (3)
An introduction to basic sociological concepts. Aspects of human behavior; individual and group interaction; social mobility and stratification; status and class; race relations; urbanism; crime and criminology; social change and reform.

Prerequisite: Three hours of Introduction to Sociology or permission of instructor. A sociological analysis of the problems of modern society, including those related to stratification, urbanism, family and kinship, cultural change, and deviant behavior.

152 Modern Social Problems (3)
Prerequisite: Three hours of Introduction to Sociology or permission of instructor. A sociological analysis of the problems of modern society, including those related to stratification, urbanism, family and kinship, cultural change, and deviant behavior.

201 Marriage and the Family (3)
Prerequisite: Three hours of Introduction to Sociology or permission of instructor. An analysis of the nature, genesis, organization, and personal and social consequences of crime and criminal behavior; an examination of theories of punishment and treatment of criminals and prevention of crime; police and court systems, prisons, and reformatories.

203 The Sociology of Small Groups (3)
Prerequisite: Three hours of Introduction to Sociology or permission of instructor. The study of the characteristics, structure, and processes of small group dynamics; theories and models of group analysis; techniques of observation and research in small groups.

204 Sociology of Work (3)
Prerequisite: Three hours of sociology or permission of instructor. The course examines the meaning and structure of the world of work and its relationship to other spheres of life. Issues covered include career patterns and social mobility, occupational status and prestige, the importance of the work setting, work satisfaction and alienation, etc.

206 Personal Worth and Collective Identity: The Socialization Process (3)
Prerequisite: Three hours of sociology. Institutional and personal dimensions of the socialization process analyzed in terms of norms, roles, group processes and stratification. Development of self-concept throughout the life cycle will be examined in terms of major agents of socialization: e.g., family, schools, peers, mass media. Focus is on influence of certain ascribed status prescriptions in contemporary society—such as race, age, sex, and the handicapped.

221 Statistics for the Behavioral Sciences (4)
Prerequisite: Three hours of Introduction to Sociology or permission of instructor. An introduction to the fundamentals of applied statistics as used in the behavioral sciences to include descriptive statistics, inferential statistics, correlation-regression, analysis of variance, factor analysis, non-parametric statistics, and practical experience with calculators in applying statistical analysis to actual problems of the behavioral sciences. Three class hours and two laboratory hours.

225 Sociology of War and Peace (3)
Prerequisite: Three hours of Introduction to Sociology or permission of instructor. Evolution of war and peace as social conflict and conflict resolution in human societies. Theories of causality of war and peace, changing nature of war and peace, and consequences of war and peace at different periods in the sociocultural evolution of human societies.

233 Power in Society: Introduction to Political Sociology (3)
An analysis of how political power is related to other aspects of social life, in terms of such sociological approaches as class conflict, social consensus, elite analysis, and bureaucratic organization theory. Discussion of local and national power structure research, corporate power, decentralization, professionals and social change, protest and revolution, imperialism, the counter-culture, and the growth of multi-national corporations.

240 Social Services in Society (3)
Prerequisite: Three hours of Introduction to Sociology or permission of instructor. A survey course covering the institutions of health and welfare in society. Places special emphasis on various ameliorative efforts made by organizations to combat the effects of social problems, and discusses the variety of skills and resources involved.

Sample Schedule for Sociology Majors

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<th>Semester</th>
<th>Course</th>
<th>Credit</th>
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http://catalog.gmu.edu
250 The Sociology of the Life Cycle (3)
Prerequisite: Three hours of sociology or permission of the instructor. Consideration of social influences on the timing of the life cycle. Topics include role theory, the historical social development of generational subcultures, youth and age as new minorities, community structure and the aging process, the mass media and the American cult of youth, and explorations of alternative patterns of generational interaction.

299 Independent Study (1-3)
Prerequisite: Three hours of Introduction to Sociology and a written proposal approved in advance of enrollment by the instructor. Individual study of a sociological topic of interest to the student. Open to sociology majors only.

302 Sociology of Delinquency (3)
Prerequisite: Three hours of Criminology or permission of instructor. An inquiry into the types, causes, treatment, and prevention of delinquent behavior.

303 Sociological Research Methodology (4)
Prerequisite: Four hours of Statistics for the Behavioral Sciences or permission of instructor. An introduction to empirical design in sociological research. Historical development, research design, sampling, methods of gathering data, sociometric scales, analysis and interpretation of results, and research reporting are examined. Three class hours and two laboratory hours.

305 Sociology of Deviance (3)
Prerequisite: Six hours of sociology to include three hours of Introduction to Sociology or permission of instructor. The major theoretical approaches to deviant behavior will be explored: functional theory, conflict theory, and symbolic interaction theory. Behavioral and attitudinal negative aspects of deviant behavior will be examined in relation to their effects upon society.

306 Demographic Analysis (Population Problems) (3)
Prerequisite: Three hours of Introduction to Sociology or permission of instructor. (It is recommended that students first take three hours of Sociology of Urban Communities.) The influence of population structure, distribution, and change in vital rates on ecological, social, economic, and political problems of human society.

307 Sociology of Collective Behavior (3)
Prerequisite: Six hours in sociology to include three hours of Introduction to Sociology or permission of instructor. An analysis of crowds, mobs, and publics. The structure and function of social movements distinguished from other forms of collective behavior are examined.

308 Sociology of Race Relations and Minorities (3)
Prerequisite: Six hours of sociology to include three hours of Introduction to Sociology or permission of instructor. An examination of the history and changes in racial, ethnic, and minority relations in modern society, with particular emphasis on the Negro in American society.

332 Sociology of Urban Communities (3)
Prerequisite: Six hours of sociology to include three hours of Introduction to Sociology or permission of instructor. An analysis of the urban community: historical development, demography, and ecology of metropolitan areas; urbanism as a way of life; the emergence of suburbia; the future of cities.

373 The Community (3)
Prerequisite: Six hours of sociology including three hours of Introduction to Sociology or permission of instructor. An examination of small to moderately-sized communities ranging through the village, rural community, small town, and city subcommunity. The latter category includes both the city and its suburbs. Includes study of case communities. Includes participant observation and field trips.

382 Education in Contemporary Society (3)
Prerequisite: Six hours of sociology to include three hours of Introduction to Sociology or permission of instructor. The study of education as a social institution. Its function as a socialization agency for social stability and social change. The influences of social class elements on the educational process and the social organization of the U.S. public school system are emphasized.

385 Sociology of Religion (3)
Prerequisite: Three hours of sociology or permission of instructor. A sociological analysis of religious phenomena. The personal and institutional dimensions of religious life will be studied within major sociological concepts such as role, status, norms, social aggregates and function. The student will study in depth an aspect of religion which interests him.

390 Medical Sociology (3)
Prerequisite: Six hours of sociology to include three hours of Introduction to Sociology or permission of instructor. An examination of the social consequences of disease and medical care, the position of the professions in the medical care structure, the delivery of medical care and the physician-patient relationship under different systems of practice. The etiology, incidence and prognosis of disease, and the restoration of patients to their normal social functions are studied in relation to the social environment.

392 Formal Organization (3)
Prerequisite: Six hours of sociology to include three hours of Introduction to Sociology or permission of instructor. An analysis of types of large, complex organizations in society; a study of the bureaucracy and of the informal group formation which is often a part of the larger structure. Effectiveness of the formal organization and its administration are features of the course.

395 Sociocultural Change (3)
Prerequisite: Three hours of sociology or cultural anthropology or permission of instructor. The study of the sources, processes, and consequences of social and cultural alteration. Anthropological and sociological models are used for case analysis of social movements, culture contact and borrowing, innovation-adoption, and planned change.

401 Social Stratification (3)
Prerequisite: Twelve hours in sociology to include three hours of Introduction to Sociology or permission of instructor. An examination of theories of and research in social stratification. Attention is given to Western and non-Western systems of social differentiation, with emphasis on selected bases of occupational and other social structures, of social inequality, and status relations in society.

402 Sociology of Punishment and Corrections (3)
Prerequisite: Twelve hours in sociology to include three hours of Sociology of Delinquency or permission of instructor. Historical overview and theory of justice; analysis of the treatment of the adult and juvenile offender. Includes discussion of the origin and development of punishment, correction, rehabilitation, residential treatment, and the halfway house. The roles of legal and social agencies in the treatment process are compared and contrasted.

410 Social Surveys and Attitude and Opinion Measurement (3)
Prerequisite: Twelve hours in sociology to include four hours of Statistics for the Behavioral Sciences, four hours of Sociological Research Methodology or permission of instructor. Survey research methods and techniques used in collecting and analyzing social data and the techniques and methods for measuring social attitudes and opinions will be studied.

411 Sociological Theory (3)
Prerequisite: Twelve hours in sociology to include three hours of Introduction to Sociology or permission of instructor. The sociological tradition will be explored through readings and discussions of ideas drawn from the writings of selected sociological thinkers such as Comte, Marx, Weber, Durkheim and others.

413 Seminar in Social Issues (3)
Prerequisite: Senior standing, three hours of Sociological Theory, and any other additional nine hours of sociology credit. The Seminar in Social Issues provides an opportunity for advanced students of sociology to apply the theoretical perspectives and methodological skills, learned in prerequisite offerings, to contemporary relevant issues.

420 Regional and Societal Development (3)
Prerequisite: Junior or senior standing or permission of instructor. An in-depth consideration of the social dimensions of economic growth and development with particular emphasis on Third World countries. Alternative definitions of development, problems related to the implementation of change strategies, the contexts of national, regional and institutional change will be examined. Case studies will be used to supplement the theoretical literature concerned with regional and societal change.

480 Seminar in Sociology (3)
Prerequisite: Enrollment is restricted to senior majors in sociology. This course may be taken for credit only once by a student. Topics of contemporary interest in sociology will be offered through individual class reports and group discussion. The topic to be studied will vary from semester to semester.
499 Independent Research in Sociology (1-3)
Prerequisites: Eighteen hours of sociology which include four hours of Statistics for the Behavioral Sciences, four hours of Sociological Research Methodology, and three hours of Sociological Theory, a B average in sociology, and a research proposal approved in advance of enrollment by the instructor and Chairman of the Department. Investigation of a sociological problem according to individual interest with stress on research.

Anthropology Courses
114 Introduction to Cultural Anthropology (3)
An introduction to cultural anthropology, the branch of anthropology that describes people living in societies today, and that offers explanations for human behavior and for various aspects of primarily non-Western culture and society. May not be used for sociology credit.

135 Human Evolution and Prehistory (3)
An exploration of human origins and nature. The significance of primate social groups and behavior, the fossil evidence for human evolution, the evolution of culture and human society, natural and sexual selection, race and intelligence, aggression, and topics of like interest will be considered.

232 Cultures in Comparative Perspective (3)
Prerequisite: Three hours of Introduction to Cultural Anthropology or permission of instructor. An examination of various theoretical orientations in anthropology and an analysis of contrasting explanations of cultural data. Several cultures will be studied in depth. For non-Western and sociology credit.

341 Issues in Anthropology (3)
Prerequisite: Three hours of Introduction to Cultural Anthropology or permission of instructor. This course provides an opportunity to explore topics of contemporary interest in anthropology, such as processes of culture change and adaptation among native North Americans. Topics will change from one semester to the next and may in the future focus on: sex roles, field techniques and methodology, anthropology and ethics, primate social organization and behavior, and culture and personality.

Requirements for the B.S. in Social Welfare
To receive a B.S. degree with a major in social welfare, the student must successfully complete requirements for the Bachelor of Science degree, including:
1. 40 semester hours in social welfare, to include SocW 201, 251, 323, 324, 352, 357, 358, 371, 453, 454, and two social welfare electives.
2. Soci 101 and 221, Psyc 100 and 310, and either Soci 203 or Psyc 231.
3. Six semester hours in each of the following: English composition, English literature, philosophy/religion, and the social sciences (history/economics/government), to include Govt 204.
4. Biol 103-104;
5. Three semester hours in mathematics. Course work in speech and anthropology and further course work in sociology/psychology are recommended.

To be admitted to the Social Welfare Program, a student must:
1. Have completed at least 45 credits with an average of 2.000 quality grade points.
2. Have achieved at least a "C" in each of the following: SocW 201, including a satisfactory evaluation of field experience, and SocW 251.
3. Have submitted application for social welfare major to the Coordinator of Social Welfare Admissions. Sophomores should file this application between Jan. 1 and March 15, juniors between Sept. 1 and Nov. 1. The student's application for admission to the social welfare major will be reviewed by social welfare faculty members for action. A personal interview may be required.

The Social Welfare Program is designed to prepare for beginning professional practice in social work and has been granted candidacy for accreditation by the Council on Social Work Education. The faculty has the responsibility to evaluate the student's performance periodically and the right to require a student to withdraw from the program when in its judgment his/her performance is not satisfactory. The decision will be based on the quality of academic and field performance as well as on personal fitness for the profession of social work. The student has the right to appeal.

Sample Schedule for Social Welfare Major

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Fifth Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engl 101</td>
<td>SocW 357*</td>
</tr>
<tr>
<td>Psyc 100</td>
<td>SocW 323*</td>
</tr>
<tr>
<td>History, Economics, or Government</td>
<td>Soci 221*</td>
</tr>
<tr>
<td>Philosophy or Religion</td>
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<td>Soci 101</td>
<td>Elective</td>
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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Engl 102</td>
<td>SocW 352</td>
</tr>
<tr>
<td>Math 106</td>
<td>SocW 358</td>
</tr>
<tr>
<td>Govt 204</td>
<td>SocW 324</td>
</tr>
<tr>
<td>Philosophy or Religion</td>
<td>SocW 371</td>
</tr>
<tr>
<td>Elective</td>
<td>Elective</td>
</tr>
<tr>
<td></td>
<td>15</td>
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<table>
<thead>
<tr>
<th>Third Semester</th>
<th>Seventh Semester</th>
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</thead>
<tbody>
<tr>
<td>English Literature</td>
<td>SocW 453 Practicum</td>
</tr>
<tr>
<td>Biol 104</td>
<td>Social Welfare Elective</td>
</tr>
<tr>
<td>Soci 201*</td>
<td>Elective</td>
</tr>
<tr>
<td>Psyc 310</td>
<td>Elective</td>
</tr>
<tr>
<td>SocW 251*</td>
<td>Elective</td>
</tr>
<tr>
<td></td>
<td>14</td>
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</table>

<table>
<thead>
<tr>
<th>Fourth Semester</th>
<th>Eighth Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psyc 231 or Soci 203</td>
<td>SocW 454 Practicum</td>
</tr>
<tr>
<td>English Literature</td>
<td>Social Welfare Elective</td>
</tr>
<tr>
<td>Biol 104</td>
<td>Elective</td>
</tr>
<tr>
<td>Anth 114</td>
<td>Elective</td>
</tr>
<tr>
<td>Elective</td>
<td>13</td>
</tr>
</tbody>
</table>

* The Social Welfare Program can be completed in the final four semesters. Students who must do so are advised to take the asterisked courses in their fifth (Fall) semester. Otherwise, their graduation will be delayed.
Social Welfare Courses

201 Laboratory in Interpersonal Communication (2)
An exploration of the dynamics of process in social work and of the student's suitability for helping roles. Emphasis is on experiential learning of the biological, psychological, social and cultural influences on the behavior of those who need and those who give help. Individual and group exercises and simulations are supplemented by service experiences in the field to provide live learning content. Students are helped to examine their own behavioral and learning patterns, values and attitudes, in order to increase their ability to understand and help social welfare clients. (Field service of 40-60 hours is required in this course.)

251 Social Welfare Policy and Services (3)
Introduction to social welfare, its historical development, central concepts, institutional nature, and the functions of social work as a profession. Exploration of underlying human needs and services organized to meet them. Field investigation and analyses of human service delivery systems, settings and roles of social work.

323, 324 Human Behavior in the Social Environment I, II (3, 3)
Prerequisite: Soci 101, Psy 310, Biol 104. A social systems approach unifying and integrating concepts and knowledge from biology, anthropology, sociology, and psychology about human behavior. Applications of this knowledge in professional practice will be examined in the social work literature and in the student's field experience.

352 Social Welfare Policy and Services II (3)
Prerequisite: SocW 251 or permission of instructor. Analysis of various social welfare policies, components of policy choice in our society. Examines the political, economic and cultural influences on the policy making process and the role of professions and citizens groups within it.

357, 358 Methods of Social Work Intervention I, II (3, 4)
Prerequisite or concomitantly: SocW 201. Studies the "holistic" nature of social work practice from a systems perspective. The common knowledge, values, foci, methods and techniques of social work are explored through readings, films, case records and roleplays. Particular emphasis is placed on identification of specific change objectives and on effective data-based methods and techniques for achieving them. Primary effort is directed toward developing knowledge and skills in the individual interview and work with groups, as basic instruments of individual, family, group and community change, as well as the organization of larger resources for change in macro systems. Stress is placed on the worker's responsibility for effecting organizational and community as well as interpersonal change. (Field service of 40-60 hours is required in SocW 358.)

371 Research in Social Work (3)
Prerequisite: Soci 221 or permission of instructor. A study of the principles and methods of research appropriate to the functions and practice of social work. Emphasis is placed on the uses of research in social work, steps in the research process, and various research designs and their utility to the social worker. Students study and apply principles of problem formulation, design, data gathering, analysis, and presentation. Individual mini-projects and group research assignments are used to facilitate skill-development.

423 Social Work with Adolescents (3)
Prerequisite: SocW 358 or permission of instructor. Examines the major needs of adolescents with their implications for social work practice. Explores how to deal with problems of family and peer group relationships, occupational choice, heterosexual and scholastic adjustment, and special problems of racial and cultural alienation, alcohol and drug abuse, and delinquency. Studies various theoretical orientations and evidence from research. Analyzes both individual and group approaches to counseling and treatment, and gives attention to the use of family and community resources to promote and sustain constructive growth and/or change.

424 Social Work Practice: Family and Group (3)
Prerequisite: SocW 358 or permission of instructor. This course is designed to provide an in-depth examination of theoretical and applied concepts in social work practice with the family and group. Students will include an identification and examination of social group work processes; the roles, skills and techniques necessary for effective worker intervention; and research findings related to group and family practice. This course should be taken simultaneously with SocW 453 or 454, Senior Practicum. Students should have the opportunity through client contact in the practicum to develop skills and techniques in social group work and family practice.

425 Planning and Organizing for Community Change (3)
Prerequisite: SocW 358 or permission of instructor. Studies the basic concepts, principles and processes of planning and organizing in social welfare. Explores the varieties in their application within diverse communities and models of local and broader community development, regional development, regional planning, social action and lobbying. Examines the use of different worker roles such as organizer, advocate, enabler, data-manager, proposal-writer, etc., situational criteria for choosing among them, and techniques for their effective implementation. Problems and issues of leadership in a democratic society are weighed in the light of both available research evidence and social work values. Priorities in local, state and national planning are investigated and assessed against evidence of need, deprivation, and inequality, and ways of reordering them explored.

453 Senior Practicum I (5)
Prerequisite: SocW 358 with a grade of at least "C" and recommendation of faculty. Open only to majors in social welfare. An intensive field experience course designed to offer an educationally relevant social work experience. Under supervisory instruction provided by field agencies, students are involved two full days per week in learning through participation in the provision of service to individual clients, families, groups and/or communities and in activities sponsored by or involving professional social workers. Weekly seminar and periodic faculty-agency consultations are employed to give further focus to learning.

454 Senior Practicum II (5)
Prerequisite: SocW 453, with a grade of at least "C" and recommendation of faculty. A continuation of the field experience and weekly seminar begun in SocW 453.

475 Selected Topics in Social Welfare Policy (3)
Prerequisite: SocW 352 or permission of instructor. This course provides an opportunity to study in depth special areas of social welfare which are of interest to students, faculty and the social work community. The topics will vary from semester to semester.

483 Selected Approaches to Social Work Intervention (3)
Prerequisite: SocW 358 or permission of instructor. This course is designed to provide senior Social Welfare students with an opportunity to examine critically their own use of three very different approaches to social work intervention currently employed in practice settings. This course is designed to be taken simultaneously with SocW 453 or 454 (Senior Practicum). Students will thus have an opportunity to use with clients the technical skills these approaches require.

499 Independent Study in Social Welfare (1-3)
Prerequisite: SocW 453 and a research proposal approved by instructor in advance of enrollment. Investigation of a research problem in the field of social welfare.
College of Professional Studies

Aims

The basic philosophy of the College is reflected in the following goals:

1. To attract, maintain and support a multidisciplinary faculty that will meet the various career, intellectual and development needs of its students.

2. To encourage a balanced faculty orientation toward teaching, research, scholarship, and community service that recognizes individual strengths and preferences while advancing the academic excellence of the University as a whole.

3. To promote among students of diverse backgrounds continuing self-development while encouraging career-professional growth.

4. To structure undergraduate programs which are responsive to community needs based on continuous assessment, interdisciplinary resources, and coordination with other institutions.

5. To anticipate and provide necessary facilities and resources for implementing effective programs now and in the future.

6. To create a University environment that considers present and future “quality of life” by fostering an atmosphere of open communication among students, faculty and community.

Programs

The College of Professional Studies enrolls students preparing for specific professions. The college is composed of four departments in which these baccalaureate professional programs are offered as major fields of study:

- Department of Education
  - Early Childhood Education (BS Ed)
  - Elementary Education (BS Ed)
- Department of General Studies
  - Medical Technology (BS)
  - Fire Administration and Technology (BS)
- Department of Health and Physical Education (BS Ed)
- Department of Nursing (BS)

Teacher Certification

The Department of Education is responsible for the professional sequence of courses, special standards and the certification recommendation for College of Arts and Sciences majors desiring to complete requirements for the Virginia Collegiate Professional Teaching Certification at the secondary school level.

Academic Policies

The University’s academic policies as outlined earlier in this catalog apply to students in the College of Professional Studies. However, education students (both elementary and secondary) should be aware of the 2.300 cumulative average required for admission to teacher education and to student teaching. Students seeking to transfer from other departments, schools, colleges, and universities, with cumulative averages lower than 2.300 are discouraged from doing so since they may have difficulty in meeting the minimum standard requirement for graduation. Further information on special requirements for preparing to teach appears under the Department of Education.

Degree Requirements

College of Professional Studies degree requirements are described in detail under the departmental sections.
Available Teacher Education Programs

The teacher education programs are designed to develop teachers who are qualified academically and professionally, and who possess the personal attributes needed for success in the teaching profession. Teacher education programs serve undergraduates in the College of Arts and Sciences and the College of Professional Studies, and post baccalaureate students through the Office of Extended Studies.

The following teacher preparation programs are available:

1. Early Childhood Education — Nursery School through Grade 3**
2. Upper Elementary Education — Grades 4 through 7**
3. Secondary Education — Grades 7 through 12 (Certification only)
4. Library Science — (Certification only)

Admission to Teacher Education Programs

Admission to teacher education programs is granted by the Teacher Education Committee on a selective basis. Prerequisites for admission are:

1. Formal application on file with the Teacher Education Committee by November 1 or March 15 of the semester preceding that in which the student intends to enroll in 400-level education courses.
2. Completion of Educ 101, 200, and 313 for elementary education majors; completion of Educ 301 and 313 for those in the Secondary Certification program.
3. A grade point average of 2.300 in all courses transferred to or attempted at the University.
4. A grade point average of 2.300 in all professional courses.
5. A minimal grade of (C) in all professional courses; deficiencies may be corrected by repeating the courses in accordance with University regulations.
6. Suitability for teaching as stipulated in part by Virginia "Certification Regulations for Teachers."
   a. Applicant must be a citizen of the United States, must be at least 18 years of age, and must possess good moral character.
   b. Applicant must have good health and no disqualifying physical or emotional handicaps. Evidence of fitness to teach from the standpoint of health may be required from a qualified physician.
7. Recommendation by the music faculty is required for music education students.

Admission to Student Teaching

A review of qualifications needed to be a teacher is conducted throughout the program. In addition to the requirements for admission to the teacher education programs (see above), early childhood and upper elementary majors must complete all required education and support courses prior to student teaching. The support courses are LAC 282, LAC 373, LAC 305, GHS 371, GHS 372, Heal 301, and LAC 361 or an approved speech course. Prior to student teaching, secondary students must have completed all prerequisite education courses and be within three semester-hours of completing the University's state-approved program in their disciplines.

** Approved by the Virginia State Department of Education and the National Council for Accreditation of Teacher Education.
† Approved by the Virginia State Department of Education.
Application for student teaching must be filed by April 15 for the fall semester and October 1 for the spring semester. During student teaching, course work is limited to the 15 semester hours work in education plus any hours enrolled for Directed Field Experiences credit (Educ 444-447). A minimal grade of (C) in Student Teaching is required to secure the recommendation of the University for certification. Because student teaching requires a full-time commitment and preparation work during evening hours, experience has shown that students with part-time employment or coursework overload usually experience difficulty.

Admission to Post Baccalaureate Status

Students holding baccalaureate degrees who are working toward certification will be required to meet the general education and subject matter requirements prescribed for undergraduate students. All post baccalaureate students must enroll through the Office of Extended Studies.

Recency of Study

Students who have not been enrolled in college work for the last 10 years and who come to George Mason University seeking teacher certification will have their college transcripts reviewed by the Teacher Education Committee. Such students may be asked by the Committee to demonstrate competence in courses currently required in either their major subject matter fields or the professional sequence. They may also be required to update their knowledge and proficiencies in these areas by completing appropriate course work in addition to that required for certification and specified on the student’s current evaluation sheet.

Post Baccalaureate Students

Student with bachelor’s degrees in the subjects listed under “George Mason University State-Approved Program Requirements,” may receive a Virginia certificate by completing all the requirements.

Students who have degrees in Music and Art should consult the Department of Fine and Performing Arts.

Students who have degrees in subjects not designated above must go to other Virginia teacher education institutions to complete requirements for a Virginia certificate.

All post baccalaureate students must enroll with the Office of Extended Studies (East Building).

Library Science

Courses in library science are offered to enable students to qualify as School Library Media Specialists in addition to their achieving certification at the early childhood, upper elementary, or secondary school levels. The following are the courses required for certification as a School Library Media Specialist: LSci 401, 402, 403, 404, and 405; LAC 305, and Educ 325.

BIS students can also take a concentration in library science.

LSci 401: Adolescent and Adult Literature, and 402: Information Services, may be taken as electives by any student.

Early Childhood and Upper Elementary Education

Programs in early childhood education (nursery school, kindergarten, grades 1-3) and in upper elementary education (grades 4-7) are offered. These programs require completion of 130 semester-hours including one semester of student teaching during the senior year. The student will need to decide prior to enrollment in 400-level courses whether he desires to be certified at the early childhood level or at the upper elementary level.

All undergraduates seeking dual certification (NK-3 and 4-7) should consult the Office of Field Experiences for current requirements. None of the additional professional course hours for dual certification will count toward the 130 hours needed for graduation.

The following is the program leading to the awarding of the Bachelor of Science degree with a major in Early Childhood Education or in Upper Elementary Education and the Virginia Collegiate Professional Certificate with endorsement at the nursery school-kindergarten-grade 3 level, or the grades 4-7 level.

Sample Schedule for Early Childhood (NK-3) or Upper Elementary (4-7) Education Major

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Fifth Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educational Science</td>
<td>GHS 371</td>
</tr>
<tr>
<td>Engl 101</td>
<td>LAC 305</td>
</tr>
<tr>
<td>Hist 121</td>
<td>Educ 320</td>
</tr>
<tr>
<td>Social Science</td>
<td>Educ 403 or 404</td>
</tr>
<tr>
<td>Regional Culture</td>
<td>Educ 409 or 410</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>Educ 444*</td>
</tr>
<tr>
<td>16-17</td>
<td>Physical Education Activity 1</td>
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<th>Second Semester</th>
<th>Sixth Semester</th>
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<tbody>
<tr>
<td>Educational Science</td>
<td>GHS 372</td>
</tr>
<tr>
<td>Engl 102</td>
<td>LAC 361</td>
</tr>
<tr>
<td>Hist 122</td>
<td>Educ 325</td>
</tr>
<tr>
<td>Regional Culture</td>
<td>Educ 407 or 408</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>Educ 445*</td>
</tr>
<tr>
<td>Educ 101</td>
<td>Approved Electives 1 or 3</td>
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<td>16-17</td>
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<th>Third Semester</th>
<th>Seventh Semester</th>
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<tr>
<td>Educational Science</td>
<td>Math (GHS 373 or Math 106)</td>
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<tr>
<td>LAC 282</td>
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<tr>
<td>Educ 200</td>
<td>Heal 301</td>
</tr>
<tr>
<td>Engl 205</td>
<td>Educ 405 or 406</td>
</tr>
<tr>
<td>Approved elective, or Regional Culture course for those taking Foreign Language option</td>
<td>Educ 419 or 420</td>
</tr>
<tr>
<td>3</td>
<td>Educ 446*</td>
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<tr>
<td>17</td>
<td>Approved Electives 3</td>
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<tr>
<td>Heal 210</td>
<td>Educ 431 or 432</td>
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<tr>
<td>LAC 373</td>
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<tr>
<td>Educ 313</td>
<td>4</td>
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<td>Engl 206</td>
<td>3</td>
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<tr>
<td>Physical Education Activity</td>
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<td>Econ 103 or 104</td>
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* Elective Credit
Bachelor of Science in Education Major in Early Childhood or Upper Elementary Education

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<thead>
<tr>
<th>Language Arts and Culture</th>
<th>Required Hours</th>
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<tbody>
<tr>
<td>English</td>
<td>32 or 34</td>
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<td>English Composition (101, 102)</td>
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<tr>
<td>Language</td>
<td>3</td>
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<tr>
<td>Select one of the following:</td>
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<tr>
<td>Creative Dramatics and Oral Interpretation (LAC 361)</td>
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<tr>
<td>Principles of Effective Speaking (Spch 100)</td>
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</tr>
<tr>
<td>Public Speaking (Spch 120)</td>
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</tr>
<tr>
<td>Option of</td>
<td>8 or 6</td>
</tr>
<tr>
<td>Foreign Language</td>
<td></td>
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<tr>
<td>Select one of the following:</td>
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<tr>
<td>French</td>
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<tr>
<td>Spanish</td>
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<tr>
<td>German</td>
<td></td>
</tr>
<tr>
<td>Regional Cultures</td>
<td>6</td>
</tr>
<tr>
<td>Select two of the following:</td>
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</tr>
<tr>
<td>Latin America (LAC 151)</td>
<td>3</td>
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<tr>
<td>Sub-Saharan Africa (LAC 152)</td>
<td>3</td>
</tr>
<tr>
<td>Asia and Western Pacific (LAC 153)</td>
<td>3</td>
</tr>
<tr>
<td>North Africa and the Middle East (LAC 154)</td>
<td>3</td>
</tr>
<tr>
<td>Literature</td>
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<tr>
<td>Readings in English and American Literature (Engl 205, 206)</td>
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</tr>
<tr>
<td>Children's Literature (LAC 305)</td>
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<td>Humanities</td>
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<td>Art for the Elem School (LAC 373)</td>
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</tr>
<tr>
<td>Music for the Elem School (LAC 282)</td>
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</tr>
<tr>
<td>Social Science</td>
<td>12 or 15^3 3</td>
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<tr>
<td>History</td>
<td></td>
</tr>
<tr>
<td>American (Hist 121, 122)</td>
<td>6</td>
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<td>Western Civilization (Hist 101 or 102)</td>
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<td>Other subjects</td>
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<tr>
<td>Economics</td>
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<tr>
<td>Geog 101 or 102</td>
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<tr>
<td>General and Health Sciences</td>
<td>27 to 29</td>
</tr>
<tr>
<td>Personal and Community Health</td>
<td>3</td>
</tr>
<tr>
<td>Teaching Health and Physical Education in the Elementary School</td>
<td>3</td>
</tr>
<tr>
<td>Physical Education Activities</td>
<td></td>
</tr>
<tr>
<td>Mathematics (GHS 371, 372 and 2-3 additional hours of approved math content)</td>
<td>8-9</td>
</tr>
<tr>
<td>Laboratory Science</td>
<td>11-12</td>
</tr>
<tr>
<td>Professional (Major) Sequence</td>
<td>(45)</td>
</tr>
<tr>
<td>Early Childhood Education: Educ 101, 200, 313, 320, 325, 403, 405, 407, 409, 419, and 431</td>
<td>(45)</td>
</tr>
<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>Upper Elementary Education: Educ 101, 200, 313, 320, 325, 404, 406, 408, 410, 420, and 432</td>
<td>(45)</td>
</tr>
<tr>
<td>Open Electives^5</td>
<td>7-12</td>
</tr>
<tr>
<td>Total</td>
<td>130</td>
</tr>
</tbody>
</table>

1. LAC 361 preferred.
2. Refer to section in catalog entitled “Foreign Language Placement.”
3. Only 12 required in social sciences for those taking the regional cultures sequence. Those who select the foreign language option must select one regional culture course to fulfill the 15 hour social science requirement.
4. All students must select either geography or history of western civilization.

Secondary School Education

These programs are offered in the College of Arts and Sciences and include the general education requirements prescribed by that college. Majors are available in biology, chemistry, economics, English, French, German, geography, government, history, mathematics, physics, psychology, sociology, and Spanish. Students with majors in Music and Art should consult the Department of Fine and Performing Arts.

The following constitutes the program for the Virginia Collegiate Professional Certificate in Secondary Education. A bachelor’s degree requires a minimum of 120 semester-hours. A bachelor’s degree designed for teacher preparation includes both the arts and sciences component and all essential elements of the teacher education program. This minimum is 131 semester-hours. An outline of these requirements follows:

General Requirements:

- Humanities: Engl 101, 102, 6
- English, Foreign Language, Speech, Fine Arts, Music, or Philosophy: 6
- Social Sciences: Hist 121 or 122, 3
- Anthropology, Economics 6, Geography, History, Political Science, Psychology or Sociology: 9
- Laboratory Science and Mathematics: At least one course in each area, 12
- Electives (from the above categories): 8
- Health and Physical Education: 5
- Heal 210, 3
- Physical Education activities^7: 2

Professional Requirements:

- Educ 301, 313, 450, 451, 452, 453, or 454; 421 and 435^7: 21

George Mason University State-Approved Program Requirements:

- Biology: (24)
- Chemistry: (24)
- Economics: (18)
- English: (30)
- English and Dramatics: (36)
- English and Journalism: (36)
- English and Speech: (36)
- Foreign Language: (30)
- General Science: (24)
- Geography: (18)
- Government: (18)
- History: (24)
- History and Social Science: (42)
- Mathematics: (27)
- Physics: (20)
- Psychology: (24)
- Sociology: (18)
- Speech: (12)

5. Open Electives: Early childhood or upper elementary education majors should plan the utilization of the available electives in such a way that their competence will be strengthened. This can be done by planning a program in a subject area such as mathematics, foreign language, English, social sciences, music, art, science, library science, physical education, or by electing graduate courses open to qualified undergraduates.

6. Required for all social science endorsements.

7. Credits for these courses are available only in the Bachelor’s Degree/Teacher Preparation Program.
Education Courses

The courses listed constitute the undergraduate program. Courses in the 200 and 300 series are open to all undergraduates. The 400 series of courses is open only to those students who have been admitted to a teacher education program. Students may not receive degree credit for more than one of the comparable courses relating to early childhood and upper elementary grades. For example, students taking Educ 407 may not receive degree credit for Educ 408.

An undergraduate may enroll in graduate courses only if he has exhausted all the upper-level undergraduate courses relevant to his educational objective and if he can demonstrate a level of maturity required for graduate level courses. In these circumstances an undergraduate may, with the written permission of the course instructor and the chairman of the department offering the course, register for graduate courses (those numbered 500 and above) and apply the credit earned toward his undergraduate degree. Undergraduate students electing this option must have completed all prerequisite hours and courses for the graduate course in which they wish to enroll.

101 Introduction to Teaching (3)
This course is designed to introduce early childhood and upper elementary education majors to the teaching profession through an examination of the role of a teacher in today's schools, the nature of American schools, and the student's potential contributions to the profession. Field experiences in public and private schools will be an integral part of the course.

200 Human Growth and Development (3)
An introduction to the study of human development from conception through adolescence. Major theories of development and hazards of development are considered. Included are studies of cognitive, intellectual, physical, social, emotional, psychological, and language development. Field experiences in public schools are required.

301 Foundations of Education (3)
Open only to secondary education students. The historical, philosophical and sociological foundations of education are surveyed with emphasis on the development of American education and those persons influencing it. A survey of the area of teaching as a profession, the curriculum and student issues and problems in education is made. The relationships between educational objectives, the structure of the educational system, and curricula are considered. Field experiences in public schools are required.

313 Educational Psychology (3)
Prerequisite: Educ 200*. Designed to acquaint the prospective teacher with the principles of psychology and their application to teaching. Included in the course are learning theory, various aspects of the learning process, individual differences, motivation, and adjustment. Field experiences in public schools are required.

320 Introduction to Tests and Measurements (3)
Prerequisite: Educ 313. An introductory course presenting basic principles, techniques, and tenets used in the quantification of measuring devices. Interpretation of standardized tests in the areas of intelligence, achievement, aptitudes, and personality will be given consideration. Construction and interpretation of measuring devices used in the classroom will be emphasized. No field experiences in public schools are required.

325 Production and Utilization of Instructional Materials (3)
A study of media production and utilization. A lab-centered course emphasizing individual projects. No field experiences in public schools are required.

400 Inservice Educational Development (2, 3, 4, 6)
Prerequisites: Employment in a professional capacity by sponsoring school division, or educational agency, acceptability to the University, or permission of the Department. Offered upon request of a school division, or other educational agency, or upon establishment of a need on the part of a group of educational personnel. Provides an opportunity for instruction in various educational areas, such as learning theory, curriculum, evaluation, materials, media, methods, reading, or other areas. The course may take any form appropriate to the area involved to include practicums and workshops. May be repeated. If applied to a specific degree program, may be accepted toward a degree by the University. May not be taken for graduate credit.

403 Developmental Reading and Language Arts at Early Childhood Levels (3)
Prerequisites: Educ 101, 200, 313; admission to the Teacher Education Program; prerequisite or corequisite: LAC 305. A study of the theoretical methods, practices, and materials involved in the teaching of communication skills (reading, listening, speaking, and writing) at the nursery school, kindergarten, and grades 1, 2 and 3 levels. Reading content emphasizes readiness abilities, readiness for reading at the primary level, word analysis and word recognition skills, vocabulary development, reading comprehension and critical reading, interpretive oral reading, reading skills in content fields, study skills, and adaptive rates of reading. Field experiences in public schools are required.

404 Developmental Reading and Language Arts at Upper Elementary Levels (3)
Prerequisites: Educ 101, 200, 313; admission to Teacher Education Program; prerequisite or corequisite: LAC 305. A study of the theoretical methods, practices, and materials involved in the teaching of communication skills (reading, listening, speaking, and writing) at upper elementary levels (4-7). Reading content emphasizes readiness abilities, readiness for reading at the primary level, word analysis and word recognition skills, vocabulary development, reading comprehension and critical reading, interpretive oral reading, reading skills in content fields, study skills, and adaptive rates of reading. Emphasis is placed on reading at upper elementary levels (4-7). Field experiences in public schools are required.

405 Teaching of Mathematics at Early Childhood Levels (3)
Prerequisite: GHS 371 and admission to Teacher Education Program. A study of the theory, methods, practices, and materials involved. Laboratory and discovery techniques are emphasized for the practical application of fundamental math concepts and reinforcement at the early childhood levels (NK-3). Field experiences in public schools are required.

406 Teaching of Mathematics at Upper Elementary Levels (3)
Prerequisites: GHS 371 and admission to Teacher Education Program. A study of the theory, methods, practices, and materials involved. Laboratory and discovery techniques are emphasized for the practical application of fundamental math concepts and reinforcement at the upper elementary levels (4-7). Field experiences in public schools are required.

407 Diagnostic Reading at Early Childhood Levels (3)
Prerequisites: Educ 403, LAC 305, and admission to Teacher Education Program. A study of the theory, methods, practices and materials involved in the diagnostic teaching of reading at the elementary levels. Diagnostic techniques for evaluation of reading progress, difficulties experienced by children in learning to read, diagnostic techniques available to the classroom teacher, differentiation of instruction to fit individual capabilities, and corrective methods. Emphasis is placed on reading at the nursery school, kindergarten, and grades 1, 2 and 3 levels. Field experiences in public schools are required.

408 Diagnostic Reading at Upper Elementary Levels (3)
Prerequisites: Educ 404, LAC 305, and admission to Teacher Education Program. A study of the theory, methods, practices and materials involved in the diagnostic teaching of reading at the upper elementary levels. Diagnostic techniques for evaluation of reading progress, difficulties experienced by children in learning to read, diagnostic techniques available to the classroom teacher, differentiation of instruction to fit individual capabilities, and corrective methods. Emphasis is placed on reading at the upper elementary levels, grades 4 through 7. Field experiences in public schools are required.

409 Teaching of Social Studies at Early Childhood Levels (3)
Prerequisite: Social Science and Regional Cultures courses and admission to the Teacher Education Program. A study of the theory, processes, methods, and materials involved in the teaching of social studies at the early childhood levels (NK-3). Field experiences in public schools are required.

*Prerequisite does not apply to secondary education students.
410 Teaching of Social Studies at Upper Elementary Levels (3)
Prerequisite: Social Science and Regional Cultures courses and admission to Teacher Education Program. A study of the theory, practices, and materials involved. Emphasis is placed on modern approaches to social studies teaching with an emphasis on planning units of instruction at the upper elementary levels (4-7). Field experiences in public schools are required.

419 Teaching of Science at Early Childhood Levels (3)
Prerequisite: Laboratory science and admission to Teacher Education Program. A study of the theories, methods, practices, and materials involved. Emphasis is placed on the relationship of the child to the environment leading to the development of basic generalizations in science. Field experiences in the public schools are required.

420 Teaching of Science at Upper Elementary Levels (3)
Prerequisite: Laboratory Science and admission to Teacher Education Program. A study of the theories, methods, practices, and materials involved. Emphasis is placed on the use of audiovisual devices and equipment. Particular attention is given to the selection, evaluation, and utilization of media in relation to the particular instruction involved. Field experiences in the public schools are required.

431 Student Teaching at the Early Childhood Levels (15)
Prerequisites: Senior standing, an overall g.p.a. of 2.300, Educ 400, 405, 407 and 419; LAC 282, 373, 305; GHS 371, 372; Heal 301, and Speech. An intensive clinical experience of a full semester in a public school in Virginia. Experiences in both kindergarten and Grades 1, 2, or 3 must be included. Additional activities will be structured to meet pre-professional needs. Such activities will consist of seminars and/or mini-courses as approved by the faculty of the Department of Education.

432 Student Teaching at the Upper Elementary Levels (15)
Same as 431 except prerequisites include Educ 408 and 420 instead of Educ 407 and 419. The experience must be in Grade 4, 5 or 6.

435 Student Teaching in the Secondary School (9)
Prerequisites: Senior standing, an overall grade point average of 2.300, or a 2.300 grade point average in major field; Educ 401 and 413: Educ 450, 451, 452, 453 or 454; corequisite or prerequisite: Educ 450. A study of the theory, methods, and practices involved in the use of instructional media in the teaching learning situation with emphasis on the secondary school level. Specific training in the use of audiovisual devices and equipment is included. Particular attention is given to the selection, evaluation, and utilization of media in relation to the particular instruction involved. Field experiences in the public schools are required.

436 Student Teaching in Elementary and Secondary Schools (9)
Same as 431 except prerequisites include senior standing, 2.300 overall g.p.a., and appropriate materials and methods courses in the field. Nine credits are awarded for student teaching in music education and twelve credits for student teaching in health/physical education.

440, 441, 442 Independent Study in Education (1-3)
Prerequisite: Admission to Teacher Education Program and permission of Department Chairman and instructor who will supervise work. Students repeating the course will register for Educ 441 or 442, as appropriate. A study of the educational concerns in various subjects, principally by directed study, discussion and research. Among the subject areas in education are: elementary science; reading; the slow learner; mathematics; English; social studies; arts and crafts; health; secondary science; language arts; child growth and development; culturally deprived; social foundations; music; learning disabilities; guidance; and the mentally retarded.

444, 445, 446, 447 Directed Field Experiences (1, 1, 1, 1)
Prerequisite: Permission of Director of Field Experiences. Students repeating the course will register for the next higher number. Provides an administrative means for students taking professional education courses to be given credit for field experiences activities conducted in conjunction with education courses. Courses with field experiences activities include Educ 101, 200, 301, 313, 403, 404, 405, 406, 407, 408, 409, 410, 419, 420, 421, 450, 451, 452, 453, and 454. Registration must be concurrent with or subsequent to registration for courses requiring field experiences. One semester-hour of credit is given for each 30 hours of field experiences successfully completed. Credit is without grade and can be counted toward total hours needed for degree.

450 Teaching Methods in the Secondary School—Foreign Languages (3)
Prerequisite: Admission to Teacher Education Program, Offered Fall semester. Required of students seeking certification in Virginia or other jurisdictions. A study of the theories, practices, and methods involved in teaching in the content area. Emphasis is placed on the development of units, evaluation of student progress, classroom management, providing for individual differences, and techniques used in motivation. Field experiences in the public schools are required.

451 Teaching Methods in the Secondary School—English and the Language Arts (3)
Same as 450. Offered Fall semester.

452 Teaching Methods in the Secondary School—Mathematics (3)
Same as 450. Offered Spring semester.

453 Teaching Methods in the Secondary School—Science (3)
Same as 450. Offered Spring semester.

454 Teaching Methods in the Secondary School—Social Sciences (3)
Same as 450. Offered Fall semester.

Library Science Courses

401 Adolescent and Adult Literature (3)
The selection of classics and contemporary interdisciplinary reading materials in relation to the needs, abilities and interest of adolescents, including adult titles for young people. Reading guidance for this age group. Attention to the gifted student, reluctant reader, and slow reader. Procedure for handling complaints relating to controversial materials. Suitable elective especially for secondary education majors.

402 Information Services (3)
Designed for the general university student as well as library science students. Use of basic library materials plus emphasis on elementary and secondary school library media. Provides experience in the evaluation of reference books and in answering fact-finding and material gathering questions.

403 Introduction to Technical Processing for Libraries (3)
The purpose of this course is to acquaint the library science student with general techniques and routines in the acquisition, preparation, and circulation of print and non-print materials. Includes simplified classification and cataloging.

404 Administration of School Library Media Centers (3)
Prerequisites: Lsci 401 and 402 and 403. To develop the understanding, attitudes, skills and information necessary for leadership in a school library media center that will contribute to the school's educational objectives. Includes visits to neighboring school library media centers.

405 Practicum in the School Library Media Center (3)
Prerequisites: Lsci 401, 402 and 403. To develop the understanding, attitudes, skills and information necessary for leadership in a school library media center. Designed to give the school media specialist experience in many aspects of media service.

* Taught in a block of 15 semester-hours during the professional semester. Course work is limited to required education courses plus any hours enrolled for Field Experience credit (Educ 444-447). Additional course work during the professional semester is not permitted.
Requirements for the Major in Medical Technology

This program requires the equivalent of three years full-time study at the University which precedes a year of clinical training at an accredited school of Medical Technology. On receiving notification from the school of Medical Technology of successful completion of the clinical year, the University awards transfer credit equivalent to GHS 401 and awards the degree. The responsibility for applying to a school of Medical Technology and gaining admission rests with the student; however, applications should be coordinated through the Department which has established contact with a number of schools. Graduation from the Medical Technology program usually occurs at the end of the Summer Session. At the time the Medical Technology student makes application for a degree (see Calendar), the student must initiate the process of certification of the GHS 401 credits by paying the University’s Special Registration Fee. Certification of the completion of these credits must be received by the Office of the Registrar no later than two weeks prior to the intended graduation date.

Sample Schedule in Medical Technology

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Fifth Semester</th>
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</thead>
<tbody>
<tr>
<td>First Semester</td>
<td></td>
</tr>
<tr>
<td>Chem 111 General</td>
<td>Chem 321 Quantitative</td>
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<tr>
<td>Biol 113 Biological Science</td>
<td>Analysis</td>
</tr>
<tr>
<td>Math 103 Finite Mathematics</td>
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<tr>
<td>Engl 101 Composition and Literature</td>
<td>3</td>
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<tr>
<td>PhEd Activity</td>
<td>Social Sciences2</td>
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<tr>
<td></td>
<td>3</td>
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<tr>
<td></td>
<td>Electives3</td>
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<td>4-6</td>
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<td>14-16</td>
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<tr>
<td>Second Semester</td>
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<tr>
<td>Chem 112 General</td>
<td>Select One</td>
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<tr>
<td>Biol 114 Biological Science</td>
<td>4-6</td>
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<tr>
<td>Math 252 &amp; 254 Introductory Statistics</td>
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<tr>
<td>Engl 102 Composition and Literature</td>
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<tr>
<td>PhEd Activity</td>
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<td></td>
<td></td>
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<tr>
<td></td>
<td>15</td>
</tr>
<tr>
<td>Third Semester</td>
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</tr>
<tr>
<td>Chem 213 and 215 Organic</td>
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</tr>
<tr>
<td>Biol 283 Cell Biology</td>
<td>3</td>
</tr>
<tr>
<td>Psyc or Soc1</td>
<td></td>
</tr>
<tr>
<td>Regional Cultures or Foreign Language</td>
<td>3-4</td>
</tr>
<tr>
<td>PhEd Activity</td>
<td></td>
</tr>
<tr>
<td></td>
<td>15-16</td>
</tr>
<tr>
<td>Fourth Semester</td>
<td></td>
</tr>
<tr>
<td>Chem 214 &amp; 218 or 220 Organic</td>
<td></td>
</tr>
<tr>
<td>Biol 281 Microbiology</td>
<td>3</td>
</tr>
<tr>
<td>Psyc or Soc1</td>
<td></td>
</tr>
<tr>
<td>Regional Cultures or Foreign Language</td>
<td>3-4</td>
</tr>
<tr>
<td>PhEd Activity</td>
<td></td>
</tr>
<tr>
<td></td>
<td>15-16</td>
</tr>
<tr>
<td>Fourth Year</td>
<td></td>
</tr>
<tr>
<td>School of Medical Technology Clinical Training (12 months)</td>
<td>30</td>
</tr>
</tbody>
</table>

1 Six hours of psychology or six hours of sociology.
2 Economics, geography, government, history.
3 American Society of Clinical Pathologists recommends physics.
Requirements for the Major in Fire Administration and Technology

This program is designed principally for students who have completed their professional courses at Northern Virginia Community College and who desire to earn a baccalaureate degree. However, under appropriate circumstances it may be open to other students as well. Credits earned in Northern Virginia Community College courses in Fire Science may not be transferred to other majors within the University. Generally, not more than one-half of the total of 128 semester hours required by this program may be transferred to the University from one or more junior or community colleges. Furthermore, a minimum of 21 hours of upper division courses is required.

Students who attend George Mason University to complete the program leading to the B.S. with a major in fire administration and technology usually bring with them approximately 50 semester hours of work applicable to this program. While the additional courses required depend on which subjects are included in these transfer credits, a schedule similar to the following five-semester sample schedule may be typical. In this sample, the first three semesters of work are assumed to be met through transfer credit.

Sample Schedule in Fire Administration and Technology

<table>
<thead>
<tr>
<th>Fourth Semester</th>
<th>Fifth Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management 3</td>
<td>Government 3</td>
</tr>
<tr>
<td>Regional Cultures 3</td>
<td>Accounting 3</td>
</tr>
<tr>
<td>Humanities Electives 3</td>
<td>Psychology 3</td>
</tr>
<tr>
<td>Economics 3</td>
<td>Economics 3</td>
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<td>PhEd Activity 1</td>
<td>SoSc 311 3</td>
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<table>
<thead>
<tr>
<th>Sixth Semester</th>
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</thead>
<tbody>
<tr>
<td>Government 3</td>
</tr>
<tr>
<td>Accounting 3</td>
</tr>
<tr>
<td>Psychology 3</td>
</tr>
<tr>
<td>SoSc 312 3</td>
</tr>
<tr>
<td>Concentration 5-3</td>
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<td>17-15</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Seventh Semester</th>
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</thead>
<tbody>
<tr>
<td>Regional Cultures 3</td>
</tr>
<tr>
<td>Literature 3</td>
</tr>
<tr>
<td>GHS 411 3</td>
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<tr>
<td>Concentration 5-6</td>
</tr>
<tr>
<td>PhEd Activity 1</td>
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<tr>
<td>15-16</td>
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<table>
<thead>
<tr>
<th>Eighth Semester</th>
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</thead>
<tbody>
<tr>
<td>Regional Cultures 3</td>
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<tr>
<td>Literature 3</td>
</tr>
<tr>
<td>GHS 412 3</td>
</tr>
<tr>
<td>Concentration 5-6</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

1 Demonstrated proficiency in a foreign language through the elementary level (first year) either by examination or successful completion of course work. Hours satisfied by examination must be replaced by elective credit hours.

2 Biol 274 may not be applied toward the B.S. with major in biology.

3 Not to include Math 106; American Society of Clinical Pathologists recommends Statistics.

4 American Society of Clinical Pathologists recommends Physics.
Language Arts and Cultures Courses

Art
LAC 373 Art for the Elementary School (4)
Pre- or corequisite: Educ 313. A developmental approach to creative teaching and learning that combines the principles of perception with visual communication. Intensive study and practice will focus on structuring multi-arts programs that meet the perceptual and cognitive needs of all children. Class meets six hours per week. A three hour field experience is required in this course. Students who have taken LAC 273 cannot take this course.

English
LAC 305 Children's Literature (3)
Prerequisite: Twelve semester hours of English. Survey of children's literature suitable for nursery school, kindergarten, and the elementary school. The historical development, types, representative authors and illustrations are studied. Critical analyses of selected works are made. The habits and interests of children at these levels are studied. The techniques of story telling and presentation of literature to children are studied and practiced.

Music
LAC 282 Music for the Elementary School (4)
Study of fundamentals of sound, rhythm, melody, harmony, and form, and their notation. Development of basic vocal, listening, and instrumental skills (selected keyboard, percussion, wind, and fretted string instruments). Application of these understandings and skills to the development of the elementary school child's musicality by the non-specialist classroom teacher. Class meets five hours each week. Students who have taken LAC 192 cannot take this course.

Regional Cultures
LAC 151 Latin America (3)
an interdisciplinary introduction to Latin America. Focus is placed upon crucial contemporary issues and their related cultural and historical origins, utilizing the perspectives and methods of the social sciences and humanities. Problems of social change and assimilation, nationalism, and international relations in selected areas are among the themes emphasized in the course.

LAC 152 Sub-Sahara Africa (3)
an interdisciplinary introduction to Sub-Saharan Africa. Focus is placed upon crucial contemporary issues and their related cultural and historical origins, utilizing the perspectives and methods of the social sciences and humanities. Problems of social change and assimilation, nationalism, and international relations in selected areas are among the themes emphasized in the course.

LAC 154 North Africa and the Middle East (3)
an interdisciplinary introduction to North Africa and the Middle East. Focus is placed upon crucial contemporary issues and their related cultural and historical origins, utilizing the perspectives and methods of the social sciences and humanities. Problems of social change and assimilation, nationalism, and international relations in selected areas are among the themes emphasized in the course.

LAC 350 Comparative Cultures (3)
Prerequisite: Two LAC Regional Cultures courses or equivalents and permission of instructor. Cross cultural and interdisciplinary seminar examining significant contemporary themes that affect the Third World.

LAC 450 Independent Study in Regional Cultures (1-3)
Prerequisite. One LAC Regional Cultures course in the region of proposed study (or equivalent) and the permission of instructor. Individual study of some aspect of the Third World, focusing on a specific theme and/or area. The student is expected to produce at least one major piece of written work during the semester.
Speech
LAC 361 Creative Dramatics and Oral Interpretation in the Elementary School (3)
Pre- or corequisite: LAC 305. Investigation and practice in effective communication in creative dramatics and oral interpretation of children’s literature. Emphasis on student's didactic development in these areas. Students who have taken LAC 355 cannot take this course.

Social Science Courses
Fire Administration
SOSC 311 Collective Bargaining in the Public Sector (3)
The study of collective bargaining and the broad concept of labor relations as involved in selection and hiring, seniority, promotions, and training. The study of labor relations and the bargaining process extending from initial hiring to retirement.
SOSC 312 Risk and Insurance (3)
An analysis of the elements of corporate risk control and management, applications in the principal fields of insurance including fire, liability, accident, surety, and property insurance.

General and Health Sciences Courses
Mathematics
GHS 371, 372 Mathematics for the Elementary School I, II (3, 3)
Concepts and theories underlying elementary school mathematics including sets, logic, systems of numeration, whole numbers, operations with whole numbers, number sentences, number theory, intuitive geometry, rational numbers, integers, measurement, probability.
GHS 373 Consumer Mathematics (2)
Survey of consumer mathematics including ratio, proportion, percent, and graphing with applications to bank accounts, budgets, insurance, loans, installment buying, investments, and taxation. This course is designed to partially satisfy Virginia state teacher certification requirements in secondary school pre-algebra mathematics.

Health Sciences
GHS 401 Clinical Chemistry and Biology (30)
Prerequisite: Acceptance by an American Society of Clinical Pathologists accredited School of Medical Technology. Theory and procedures of clinical chemistry, radioisotope techniques, clinical bacteriology, parasitology, mycology, histology, cytology, serology, hematology, and urinalysis. Practical experience in performing clinical laboratory procedures.

Fire Technology
GHS 411 Special Hazards Control (3)
The study and analysis of the properties of industrial materials, such as combustible metals, cryogenic materials, plastics, radioactive materials, flammable liquids, gases and dusts, which require special handling by safety services during an emergency with emphasis on special fire protection treatment.
GHS 412 Process and Transportation Hazards (3)
A survey of general principles concerning special hazards in industrial and manufacturing processes. Essentials of fire-safe transportation with focus on storage and safety aspects to personnel and equipment.

Department of Health and Physical Education
Faculty
Professor: Fox (Chairman)
Associate Professors: Kilby, Metcalf, Richardson, Spuhler
Assistant Professors: Hasko, Linn, Schack
Instructors: Ferrier, Reimann
Lecturers: Burch, Gordon
## Requirements for the Major

The program for teaching health and physical education is offered by the College of Professional Studies. This program qualifies the individual for the Bachelor of Science in Education degree with a major in health and physical education and for the Virginia Collegiate Professional Certificate with endorsement in health and physical education. This certificate is valid at both the elementary and secondary school levels.

Students are directed to "Admission to the Teacher Education Program" and "Admission to Student Teaching" in the Department of Education section of this catalog.

During the second semester of the senior year the student will complete a professional semester which will include Physical Educ 472 and Educ 436.

Specific requirements for the degree of Bachelor of Science in Education with a major in health and physical education are as follows:

### Sample Schedule in Health and Physical Education

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Fifth Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biol 124</td>
<td>Educ 301</td>
</tr>
<tr>
<td>Engl 101</td>
<td>Social Studies</td>
</tr>
<tr>
<td>Hist 121</td>
<td>Educ 306</td>
</tr>
<tr>
<td>Art or Music</td>
<td>Ph Ed 304</td>
</tr>
<tr>
<td>Ph Ed 201</td>
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| Total Minimum Semester Hours | 128 |

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1 Refer to section on Foreign Language Placement in catalog.

2 Courses in the Ph Ed 100 series must include Gymnastics, Aquatics, one course in Dance, one course in Team Sports, one course in Individual and Dual Sports and one elective.

3 May earn up to four credits in Directed Field Experiences, Educ 444-447.

4 LAC 361 is the recommended course.
Health Courses

205 General Safety (3)
Safety problems relating to water sports, non-motorized vehicles, and home environment are discussed and safety materials, methods and techniques are developed. Liability, prevention and emergency care of all types of injuries with reference to first aid and athletics. Proper use of personnel, facilities and equipment. Includes Red Cross Standard First Aid Certification. Two lecture, three laboratory hours.

210 Personal and Community Health (3)
Consideration is given to the principles for the promotion of optimum individual, family and community health, and a survey of current health problems confronting the individual and the community. Emphasis is placed on areas involving mental health, use and abuse of alcohol, tobacco and drugs, human sexuality and sex education, disease and accidents. Attention is also given to medical care, physical fitness, nutrition, weight control, consumer health, and environmental health.

301 Teaching Health and Physical Education in the Elementary School (3)
Prerequisite: Heal 210 and two physical education courses in the 100 series. Designed to provide the prospective teacher with information concerning the theory, methods, and materials involved in the teaching of physical education, health, safety, and recreation in the elementary school. Emphasis is placed on the application of methods and materials to classroom and playground situations. Field experiences in the public schools are included. Not for health and physical education majors.

401 The School Health Program (3)
Prerequisite: Heal 210. Course deals with the three areas of the school health program health services, healthful school environment and health education as the interrelated responsibility of both school and community. Major emphasis is placed on health education curriculum and methods appropriate for the intermediate and secondary schools. Field experiences in public schools are required.

402 Driver Education (3)
Critical analysis of traffic accidents, attitude factors, essential knowledge of automobile operation, traffic laws and regulations. Includes introduction to laboratory experiences in the use of psycho-physical and psychological tests in the development of driving skills, practice driving instruction and teaching. Two lecture hours, three laboratory hours.

Physical Education Courses

Activity Courses. All activity courses will be three hours of activity each week.

Dance

107 Folk, Square and Social Dance (1)
This course is equally divided between folk, square and social dance with emphasis on basic steps, sequences and style for each.

PhEd 125 Beginning Modern Dance (1)
This course is designed to develop in the inexperienced student knowledge, skills and an appreciation of modern dance through the presentation of fundamental techniques and creative movement experiences. This course is identical to Danc 125 BMD (1).

PhEd 126 Beginning Intermediate Modern Dance (1)
Prerequisite: PhEd 125 or permission of instructor. This course is designed to further develop the knowledge, skills, and appreciation of modern dance through the continued exploration of techniques, aesthetics, and creativity. This course is identical to Danc 126 BMD (1).

207 Intermediate Folk, Square and Social Dance (1)
Prerequisite: PhEd 107 or permission of instructor. This course is designed to further develop skill in the dance forms of folk, square, and social dance and the movement qualities inherent to each of these three forms. The course will include more advanced skill in square and social as well as introduce new dance steps and styles in folk and social dance.

342 Creative Dance for Children (3)
Study of dance as an expressive medium for children; emphasis on concepts and principles, methods and materials and how they can be adapted to the classroom situation. Consideration given to dance for children with special education problems.

Individual Sports

103 Beginning Fencing (1)
This course is designed to provide the student with the opportunity to learn the basic skills, techniques, and rules of foil fencing and to prepare the student to be an intermediate level foil fencer.

105 Aerobics, Basic Conditioning, Cross Country and Track (1)
This course is designed to provide the student with the opportunity to learn the benefits of a sound fitness program and to follow such a program so that many of these benefits may be adopted in later life.

106 Beginning Gymnastics (1)
This course is designed to provide the student with the opportunity to learn the basic skills and techniques associated with gymnastics.

108 Weight Training and Body Conditioning (1)
The principles and techniques of progressive resistance exercise and cardiovascular fitness routines.

109 Beginning Ice Skating (1)
This course is designed to acquaint the student with the fundamental skills necessary to select ice skating equipment as well as to be able to skate forward and backward. It will also include professional instruction plus two hours of practice time per week. ($30.00 Fee)

110 Beginning Swimming (1)
As an introductory swimming course, this level is open only to those who cannot swim at all or cannot swim safely in deep water. Emphasis is placed on enabling the student to become a safe swimmer. ($2.00 per meeting plus $20.00 Fee)

116 Combative Sports, Games, Unarmed Combat, and Wrestling (1)
This course is designed to give the student a background in combative sports which may be taught in a limited area with little equipment.

*133 Tennis for All (1)
Summer Session only. For individuals with no or some experience in tennis; introduction and/or review of basic ground strokes, volley, serve and smash, rules, strategy and terminology.

140 Golf (1)
The fundamentals of golf: grip, stance, swing, rules and etiquette are presented. Students attend classes at selected golf courses for practical experience. ($20.00 Fee)

150 Intermediate Swimming (1)
This course is for students who can swim safely in deep water and wish to increase their proficiency, endurance and versatility in aquatics. ($2.00 per meeting pool fee)

*151 Beginning Badminton and Tennis (1)
The introduction and practice of basic skills of each sport; rules, terminology and strategy so the individual may enjoy the sport.

*152 Tennis for the Advanced Beginner (1)
Prerequisite: PhEd 151 or equivalent experience. Concentration on the development of basic ground strokes, serve, volley and smash; racket selection, rules, terminology and strategy in game play.

*153 Intermediate Tennis (1)
Prerequisite: PhEd 152 or equivalent experience. Analysis of strokes and corrective techniques for common faults in ground strokes, serve, volley, smash and the introduction of the chop, slice, half-volley and lob; rules, terminology, singles and doubles tactics and strategy.

*154 Advanced Tennis (1)
Prerequisite: PhEd 153 or equivalent skill level. Concentration on net play and court positioning in singles and doubles, return of service, service variations, drop-shot, stop-volley, overhead smash and offensive lob; rules, terminology, advanced tactics and strategy.

161 Archery and Golf (1)
Consideration is given to the basic skills, techniques, and rules of target archery and golf. Special attention is given to the beginning student.

170, 171, 172, 173 Individual Physical Education (1 each)
Prerequisite: Consent of instructor and Classification of "C" or "D" on the Departmental Health Classification Form. Students who by reason of illness, disability or physical defect are unable to participate in the regular program of physical education may register for this course. The activities for each individual in the course are based on the recommendations of the physician.

*Students taking tennis classes are required to purchase a can of new balls and a United States Tennis Association Rule Book.
200 Swimmers (1)  
This course is for students who can swim 50 meters of a good crawl or breast stroke. Speed, endurance, and perfection of strokes and diving will be stressed. ($2.00 per meeting pool fee)

210 Advanced Swimming and Advanced Life Saving (1)  
This course is designed to meet certification requirements for Advanced Swimming and Advanced Life Saving for American National Red Cross. ($2.00 per meeting pool fee)

Team Sports  
101 Soccer and Volleyball (1)  
This course is designed for the beginning student as an orientation to the fundamental skills, rules, and strategies with the application of these to a game situation in both of the two sport areas.

104 Lacrosse (1)  
This course is designed to provide the student with an opportunity to learn fundamental skills and strategies of lacrosse.

111 Basketball and Soccer (1)  
The student is provided the opportunity to learn the basic skills, techniques, strategies, and rules of basketball and soccer.

114 Speedball and Softball (1)  
An introduction and practice of skills, terminology, rules and game strategy for each sport.

121 Flag Football and Basketball (1)  
An introduction and practice of fundamental skills, terminology, game regulations and game strategy for each sport.

124 Basketball and Softball (1)  
An introduction and practice of skills, terminology, rules, game strategy and basic conditioning for each sport.

131 Volleyball and Field Hockey (1)  
This course is designed to provide the beginning student with the opportunity to learn the basic skills, techniques, strategies and rules of volleyball and field hockey.

Recreational Activities  
115 Recreation-Fishing and Camping (1)  
The study of various fishing techniques to include learning to use fly rods, spinning rods, bait casting rods and spin casting equipment along with basic camping techniques.

119 Recreation-Trap and Skeet Shooting (1)  
The study of the principles, analyses, fundamentals and safety aspects involved in shooting clay targets and reloading. ($20.00 Fee)

120 Recreation-Orienteering, Backpacking and Cookery (1)  
To introduce to the student basic skills and knowledge related to leisure time activity. Orienteering, hiking, backpacking, and outdoor cookery will be emphasized.

Professional Courses  
201 Professional Dimensions of Physical Education (3)  
An overview of the field of physical education and its relationships to health, recreation and other academic disciplines provides the major with an introduction to the field.

206 Gymnastics for Children and Youth (2)  
Prerequisite: PhEd 106 or permission of instructor. The study of the principles, analyses, fundamentals and progressions in teaching gymnastics and tumbling to children and youth of pre-school through secondary school age. Field experiences are included. One lecture, three activity hours.

211 Sports Officiating and Intramural Administration (3)  
Prerequisite: PhEd 201 or permission of instructor. The practical application of officiating techniques and the organization of a sound intramural program. Two lectures, three laboratory hours.

222 Kinesiology (3)  
Prerequisite: Biol 124, 125, or permission of instructor. Designed to acquaint the student with the study of human movement. Fundamental joint movement, servomotor control, body mechanics, kinesthetic awareness, kinematics, kinetics and cinematographic analysis will be emphasized. Field experiences may be required. Three hours lecture, one laboratory hour.

304 Sport, Culture and Society (3)  
Prerequisite: PhEd 201 or permission of instructor. Deals with the impact of sport on society from historical, political, economic and cultural viewpoints.

306 Psychomotor Learning (3)  
Prerequisites: Educ 200, 313, or permission of instructor. The study of one of man's three educational domains. The content of the course will emphasize learning theory, learning processes, the learner, conditions for learning, and individual differences in human performance. Field experiences may be required.

308 Developmental Physical Education (3)  
Prerequisites: Biol 124, Educ 200, or permission of instructor. This course will be a synthesis of the developmental processes of the human as it relates to movement and exercise. An in-depth study of various chronic and functional inadequacies which may interfere with an individual's successful participation in physical education will be included. Field and/or laboratory experiences may be required.

316 Recreation and Outdoor Education (3)  
Techniques of recreational leadership: community resources, supervision and evaluation methods of converting leisure into useful and cultural achievements. Participation in such outdoor recreational skills as camping, map reading, firearms safety, hand loading, trap and skeet shooting, angling techniques, fishing and archery. Two lectures, three laboratory hours. ($20.00 Fee)

365 Measurement and Evaluation in Health and Physical Education (3)  
Prerequisites: PhEd 201, 222. The selection, administration and use of measurement devices and evaluative techniques in the fields of Health and Physical Education. Criteria for test construction and selection, survey of tests in both areas, and some emphasis on statistical analysis of data.

371 Curricular Experiences in Secondary School Physical Education (3)  
Prerequisite: PhEd 222. This course consists of professionalized approach in the analysis and practice of the skills of activities included in the Secondary School Physical Education Program. Progression of skills, presentation techniques, understanding of game strategy and knowledge of rules are stressed. The course includes peer group teaching and field experience in public schools. Class meets five hours weekly.

403 Curricular Experiences in Elementary School Physical Education (3)  
Prerequisites: Educ 313 and PhEd 222. An orientation in curricular experiences and methods appropriate for elementary school physical education. A study of elements of movement, activities for body management and refinements of basic skills as well as specialized skills, games, sports, stunts, self-testing activities and folk, square and creative dance. Includes peer-group teaching and field experience in public schools.

410 Psychology of Sport and Coaching (3)  
Illustrates the latest research, trends, and techniques of modern coaching. The course will emphasize practical as well as scientific principles of coaching.

420, 421 Coaching of Sports (2, 2)  
Prerequisite: Permission of Chairman. Consideration of several sports usually coached at the secondary level. Each activity is scheduled on a semester basis and conducted independently for two credit hours. Each activity is considered a separate course. Special attention to principles and fundamentals of individual offensive and defensive play, individual and group strategy, team and staff organization, and materials for coaching the particular sport.

430 Prevention and Care of Athletic Injuries (3)  
Prerequisites: Biol 124, 125, PhEd 410. A study of preventive measures and medical management of athletic injuries. Experiences in application of various methods of treatment of athletic injuries will be provided. Preventive taping, exercise techniques, and physical modalities will be presented.

431 Diagnostic and Clinical Techniques of Athletic Training (2)  
Prerequisite: PhEd 430. This course is arranged to provide evaluation, management and rehabilitation techniques of athletic injuries within a clinical environment. One hour of lecture and two hours of laboratory experience per week will be given.

432 Conditioning and Advanced Athletic Training (2)  
Prerequisite: PhEd 431. A study of specific preventive and therapeutic conditioning programs. Such topics as exercise techniques, analysis of body movements during exercise and injury, and the applied use of modalities will be covered. The basics of anatomy, taping, and the organization and administration of the athletic training program will be reviewed.
440 Practicum in Athletic Coaching (2)
Prerequisites: PhEd 410 and/or permission of Chairman. Supervised practice in athletic coaching in a selected secondary school. Work with individual athletes and with teams under faculty coach supervision. Involves at least 70 hours of participation in many aspects of athletic coaching.

441 Practicum in Athletic Training (2)
Prerequisites: PhEd 410 and/or permission of Chairman. Application of the techniques and procedures in the care and prevention of athletic injuries in a selected secondary school. Work with aspects of athletic training under faculty-certified trainer supervision. Involves at least 70 hours of participation in many aspects of athletic training.

450 Physiology of Exercise (3)
Prerequisites: Biol 124, 125, PhEd 222. A study of the physiological response of the human body to both acute and chronic exercise stress.

460 Management and Evaluation in Physical Education (3)
Prerequisites: PhEd 201, 304, 306, 308, 371. The course deals with management and evaluation of the total physical education program in elementary and secondary schools. Administrative principles, organizational details and evaluation procedures are viewed in terms of health and physical education classes, intramural sports and athletics.

*472 The Physical Education Program, Grades K Through 12 (4)
Prerequisites: PhEd 403 and Heal 401. The selection, design and application of learning experiences appropriate for elementary, middle and secondary young people based on developmental needs. Includes philosophy, objectives, class control, methods, safety, curriculum planning, facilities and equipment. Field experience in public schools is required.

* Taught as a block during the professional semester. Course work beyond the semester hours included in the professional semester is not permitted.

Nursing

Department of Nursing Faculty
Professor: Cohelan (Chairman), Franklin
Associate Professors: Ailinger, Lanahan, Liu, Silva, Smith
Assistant Professors: DiLoreto, Gaffney, Hanscom, Harper, Hines, Millonig, Mullin, Redmond, Sewall, Vaughan, Weed, Wheaton
Instructors: Brown, Harris, Schoenfisch, Sobota, Zink
Lecturers: Joseph, Jurin, Michael, Ortiz

Undergraduate Catalog 1977-1978
George Mason University

120

http://catalog.gmu.edu
Requirements for the Major

Bachelor of Science degree with a major in nursing is a program designed to meet the challenge of a changing and increasingly more demanding health care delivery service. Graduates are prepared to function as professional nurses in hospitals, nursing homes, in community health agencies and in the home.

Emphasis is placed on early detection of potential health problems, care of patients, health maintenance in ambulatory services and enlarged responsibilities for nurses.

Registered nurses may obtain a maximum of 30 hours of credit toward the baccalaureate degree by successful performance on Advance Placement Examinations.

In addition to the University-wide regulation of a maximum of 30 hours of credit which may be granted to all students on the basis of examinations administered to candidates presenting some evidence of qualification, Registered Nurses may obtain up to 30 additional hours of credit in nursing courses by successful performance on Advance Placement Examinations.

Students, at their own expense, are required to acquire personal liability group insurance policies and periodic health examinations and immunizations as soon as they are scheduled for their first clinical assignment in a hospital, nursing home or health agency.

Special Quality Standards in the Major Field

Because knowledge, skills, and behavior patterns in the major field of this program are so vital to the health and perhaps even the survival of individuals or groups of human beings served, failure or borderline achievement cannot be tolerated. Therefore, the faculty of the Department has established, with approval of the University faculty and administration, the following special major field quality standards which go beyond the general University quality standards printed elsewhere in this catalog:

1. A final nursing course grade of less than "C" prohibits further progress in the sequence of required nursing courses. The sequence is as listed in the following "Sample Schedule for Nursing Majors." For a grade of "C" or better in a course which includes clinical instruction, a final grade of "C" or better must be earned in both the laboratory and lecture portions.

2. A student may repeat no more than one nursing course. In effect, two or more grades of less than "C" in nursing courses results in the suspension of one’s eligibility to pursue further the Nursing Department courses at George Mason University.

3. A student so suspended may after a one-year time lapse, petition the appropriate academic dean for permission to repeat only the nursing course(s) in which he received unsatisfactory grades. Failure to produce a satisfactory grade of "C" or better in the trial course(s) or, subsequently in any nursing course, results in exclusion from George Mason University’s Nursing Program.

Sample Schedule for Nursing Majors

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<td>Humanities</td>
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<td>Chem 103</td>
<td>Nurs 421</td>
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<tr>
<td>Elective</td>
<td>Nurs 431</td>
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<tr>
<td>Nurs 211</td>
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<tr>
<td>Nurs 250</td>
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<td>Chem 104</td>
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Specific requirements for the degree of Bachelor of Science with a major in nursing are as follows:

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<th>Language Arts and Culture</th>
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<tr>
<td>English</td>
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<tr>
<td>Speech</td>
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<tr>
<td>Introduction to Speech Communication (100) or Introduction to Small Group Discussion (130)</td>
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</tr>
<tr>
<td>Humanities</td>
<td>6</td>
</tr>
<tr>
<td>Art (appreciation, history, criticism or theory)</td>
<td></td>
</tr>
<tr>
<td>Music (appreciation, history, criticism or theory)</td>
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</tr>
<tr>
<td>Regional Cultures (151, 152, 153, 154)</td>
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<tr>
<td>Literature (in addition to six hours of Engl 101-102)</td>
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</tr>
<tr>
<td>Philosophy, Language, Ethics, Archeology of Humanities</td>
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</table>

| Social and Behavioral Sciences | 9 |
| Sociology                     | 3 |
| Psychology                    | 6 |

| Mathematics and Natural Sciences | 21-23 |
| Chem 103-104 or 111-112         | 8     |
| Biology                       | |
| Anatomy and Physiology (124-125) | 8 |
| or Human Structure and Function (274) | 6 |
| Introductory Microbiology (185) | 4    |
| Mathematics                   | 3     |
| Introduction to Statistics (252-254) | |

| Physical Education Activities (100-level) | 4 |
| Major                                     | 54 |
| Nurs 211 or 300, 250, 260 or 306, 262, 301, 302, 311, 312, 321, 322, 411, 421, 431, 460, 462, 470, 472 | |
| Electives                                  | 17-19 |
| Total                                     | 122 |
Nursing Courses

211 Nursing: A Practice Discipline (3)
An introduction to nursing as an emerging discipline, profession and occupation. Emphasis is placed on the development of a dynamic concept of nursing and essential behaviors of members of the profession. Three hours lecture.

250 Systems of Health Care (3)
Consideration of systems of health care of individuals and groups including pertinent scientific and cultural norms. Examination of ranges of physiological and psychological alterations treated or contained within systems of health care. Three hours lecture.

260 Design and Control of Nursing Systems (2)
Prerequisite: Nurs 211 or permission of instructor. Introduction to knowledge needed in designing, implementing and evaluating nursing systems for individuals and small groups. Two hours lecture.

262 Technologies in Nursing (2)
Prerequisites: Nurs 211 and 250. Skills required in the assessment, design and control of nursing systems. Clinical practice arranged. Six hours laboratory.

300 Orientation to Professional Nursing (3)
Prerequisite: Licensure as registered nurse or permission of instructor. Relationship between baccalaureate education and nursing as an occupation, profession, and emerging discipline. Development of a dynamic concept of nursing and essential behaviors of members of the profession. Students who have taken Nurs 211 cannot take this course. Three hours lecture.

301, 302 Elements of Pathology and Medical Therapeutics (4, 4)
Prerequisites: Anatomy and Physiology, Chemistry, Microbiology, Psychology and Sociology, Nurs 211, 250, 260, 262. Content which is foundational to nursing; pathology in psychological, sociological and physiological system; medical technologies, selected modes of medical diagnosis and treatment. Four hours lecture.

306 Application of Principles of Nursing Systems (2)
Prerequisite: Licensure as registered nurse or permission of instructor. Prerequisite or corequisite: Nurs 211 or 300. Principles required in assessing, designing and controlling nursing systems for individuals and small groups. Students who have taken Nurs 260 cannot take this course. Two hours lecture.

311, 312 Nursing of Individuals (3, 3)
Prerequisites: Nurs 211, 250, 260, 262. Corequisites: Nurs 301. Design and control of nursing systems; purposive planning to bring together essential elements to form a coherent nursing system. Clinical application to individuals focusing on the variables of age, developmental stages, life cycle events, roles, health disorders and the health situation. One hour lecture, six hours laboratory.

321, 322 Nursing of Small Groups (3, 3)
Prerequisites: Nurs 211, 250, 260, 262. Corequisites: Nurs 302. Design and control of nursing systems; purposive planning which brings together essential elements to form a coherent nursing system. Clinical application to small groups and families focusing on the variables of age, developmental stages, life cycle events, roles, health disorders and the health situation. One hour lecture, six hours laboratory.

411 Scholarship Dimensions of Nursing (4)
Prerequisites: Nurs 311, 312, 321, 322. Prerequisite or corequisite: Statistics. Focus is on the body of nursing knowledge; methods of development and examination of nursing knowledge; use in education, scholarship and practice functions in the discipline. Three hours lecture, three hours laboratory.

421 Group Phenomena (4)
Prerequisites: Nurs 311, 312, 321, 322. Content essential for use in nursing; principles of community organization, administration and group dynamics. Four hours lecture.

431 Nursing of Large Groups (4)
Prerequisites: Nurs 311, 312, 321, 322. Prerequisite or corequisite: Statistics. Development of nursing systems when the client is a population. One hour lecture, nine hours laboratory.

460 Nursing in the Systems of Health Care (3)
Prerequisites: Nurs 311, 312, 321, 322. Synthesis of knowledge of nursing control in a setting in which patients possess a described range of attributes. Three hours lecture.

462 Practicum: Nursing in Health Care (2)
Prerequisites: Nurs 311, 312, 321, 322. Application of techniques of systems control in a setting in which patients possess a described range of attributes. Six hours laboratory.
Aims
The Department of Business Administration becomes the School of Business Administration on July 1, 1977. The basic philosophy of the School is reflected in these goals:

1. To become a recognized, accredited professional School of Business Administration serving the needs of the citizens of Northern Virginia.

2. To attract, maintain, and support a multidisciplinary faculty that will meet the various career, intellectual, and developmental needs of its students.

3. To encourage a balanced faculty orientation toward teaching, research, scholarship, and community service that recognizes individual strengths and preferences while advancing the academic excellence of the University as a whole.

4. To structure undergraduate programs with a focus on preparing students for professional careers which are responsive to community needs based on continuous assessment, interdisciplinary resources, and coordination with other institutions.

5. To foster an atmosphere of open communication among students, faculty, and community which contributes significantly to the professional development of students and faculty.
School of Business Administration Faculty
Professors: DeBoer (Dean), Tongren
Associate Professors: Clloyd, English, Floyd, Siff, Stein- naher, Zieg
Assistant Professors: Baum, Bjorklund, Bressler, Brooks, Enrkin, Gunther, Johnston, Kovach, Marchione, Martin, Matthews, Mietus, McIlvaine, Oblak, L. Samuels, Sands
Acting Assistant Professor: Silberg
Instructors: Hoelzel, Ingram, Sheldon, Steele

Requirements for the Major
The program in business administration offered by the University culminates in a Bachelor of Science degree and requires a minimum of 122 hours of course work. Students who have previously enrolled in a degree program in business administration at another institution must be enrolled in this degree program at George Mason University for at least 30 semester-hours. This work must include at least 15 semester-hours of upper-level (numbered 300 or 400) business credits of which 6 semester-hours must be in courses not designated as core requirements in order to receive the degree of Bachelor of Science with a major in business administration.
As part of his/her degree program the student must present fifteen semester hours of upper-level business courses in an approved area of concentration. A list of approved areas of concentration can be obtained by the student from his/her adviser.

Sample Schedule for Bachelor of Science with Major in Business Administration
Course numbers are shown where applicable. Otherwise, students should consult appropriate catalog section.

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Fifth Semester</th>
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<tbody>
<tr>
<td>Econ 103</td>
<td>BuAd 311</td>
</tr>
<tr>
<td>Engl 101</td>
<td>BuAd 335</td>
</tr>
<tr>
<td>Math 107</td>
<td>BuAd 341</td>
</tr>
<tr>
<td>Laboratory Science*</td>
<td>BuAd 377</td>
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<tr>
<td>Humanities** and/or Psychology or Sociology</td>
<td>History or Government</td>
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<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Sixth Semester</th>
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<tbody>
<tr>
<td>Econ 104</td>
<td>BuAd 378</td>
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<tr>
<td>Engl 102</td>
<td>Econ 306 or 310</td>
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<tr>
<td>Math 108</td>
<td>Business Administration area of concentration</td>
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<tr>
<td>Laboratory Science</td>
<td>Electives</td>
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<tr>
<td>Humanities and/or Psychology or Sociology</td>
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<tr>
<th>Third Semester</th>
<th>Seventh Semester</th>
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<tbody>
<tr>
<td>BuAd 201</td>
<td>Business Administration area of concentration</td>
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<tr>
<td>BuAd 261</td>
<td>Economics Elective</td>
</tr>
<tr>
<td>BuAd 212</td>
<td>Economics course</td>
</tr>
<tr>
<td>Engl 203 or 205</td>
<td>Electives</td>
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<tr>
<td>Humanities and/or Psychology or Sociology</td>
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<table>
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<tr>
<th>Fourth Semester</th>
<th>Eighth Semester</th>
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<tbody>
<tr>
<td>BuAd 202</td>
<td>BuAd 434</td>
</tr>
<tr>
<td>BuAd 262</td>
<td>Business Administration area of concentration</td>
</tr>
<tr>
<td>Engl 204 or 206</td>
<td>Electives</td>
</tr>
<tr>
<td>Speech (100 or 130 recommended)</td>
<td></td>
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<tr>
<td>Humanities and/or Psychology or Sociology</td>
<td></td>
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<td></td>
<td>15</td>
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* Biology, Chemistry, Geology, or Physics.
** Art, Music, Religion, or Philosophy.
Specific requirements for the degree of Bachelor of Science with a major in business administration are as follows:

**Business Core Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td>Accounting (BuAd 201, 202)</td>
<td>6</td>
</tr>
<tr>
<td>Data Processing (BuAd 212)</td>
<td>6</td>
</tr>
<tr>
<td>Principles of Management (BuAd 335)</td>
<td>3</td>
</tr>
<tr>
<td>Statistics (BuAd 261, 262)</td>
<td>6</td>
</tr>
<tr>
<td>Marketing (BuAd 311)</td>
<td>3</td>
</tr>
<tr>
<td>Finance (BuAd 341)</td>
<td>3</td>
</tr>
<tr>
<td>Business Law (BuAd 377, 378)</td>
<td>6</td>
</tr>
<tr>
<td>Business Strategy and Policy (BuAd 434)</td>
<td>3</td>
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</tbody>
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**Upper-Level Business Area of Concentration**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td>Language Arts and Culture</td>
<td>15</td>
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<tr>
<td>English Composition</td>
<td>6</td>
</tr>
<tr>
<td>Speech (100 or 130 recommended)</td>
<td>3</td>
</tr>
<tr>
<td>Literature</td>
<td>6</td>
</tr>
<tr>
<td>Humanities (Art, Music, Philosophy, Religion)</td>
<td>6</td>
</tr>
<tr>
<td>Principles of Economics</td>
<td>6</td>
</tr>
<tr>
<td>Economics (including 306 or 310)</td>
<td>6</td>
</tr>
<tr>
<td>History or Government</td>
<td>3</td>
</tr>
<tr>
<td>Psychology and/or Sociology</td>
<td>6</td>
</tr>
<tr>
<td>General and Health Sciences</td>
<td>14</td>
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<tr>
<td>Mathematics (101, 108)</td>
<td>6</td>
</tr>
<tr>
<td>Laboratory Sciences (Biology, Chemistry, Geology, Physics)</td>
<td>8</td>
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</tbody>
</table>

**Electives**

<table>
<thead>
<tr>
<th>Hours</th>
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<tr>
<td>18</td>
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<td>Total2</td>
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1. Must be taken at George Mason University.
2. May include a maximum of 61 semester credit hours of credit from accredited two-year colleges.

**Business Administration Courses**

201 Financial Accounting (3)
A conceptual approach to the study of basic financial accounting and reporting practices, including financial control.

202 Managerial Accounting (3)
**Prerequisites: BuAd 201.** Preparation of accounting reports and analyses for use by management in planning and controlling enterprise operations. Topics include statement analysis, resource flow statements, budgeting, cost concepts and applications, and the role of income taxes in decision making.

205 Personal Finance (3)
Course cannot be counted toward required hours for graduation in business administration. Financial problems encountered in managing individual affairs; family budgeting, installment buying, insurance, home ownership, investing in securities and saving alternatives.

212 Introduction to Data Processing (3)
A survey of the systems and hardware in general use for data processing by business organizations with emphasis on computer-based data processing and management systems. Topics covered include manual and punched card systems; computer systems — capabilities, hardware operating principles, performance characteristics; computer software; analysis, design and implementation of computer programs, with emphasis on time-shared BASIC; use of library programs; laboratory exercises.

214 Introduction to COBOL Programming (3)
**Prerequisites: BuAd 212.** Introduction to computer programming in COBOL and batch-processing for managerial applications. Analyzing, coding, debugging, executing and documenting programs. Laboratory exercises are emphasized.

212 Business Communication (3)
An introduction to the forms, practices, and problems of effective business communications. Includes inquiry into the sources and uses of business information; techniques for analyzing and evaluating data; for conducting interviews and conferences; and for developing and using creative abilities of employees. Emphasis is placed on written exercises.

261 Statistical Analysis I (3)
**Prerequisites: Six credits of college mathematics (Math 107, 108 is recommended).** Principal emphasis is placed on the use of statistical methods as scientific tools in the analysis of practical problems rather than on theory. Topics covered include: collection and presentation of data; descriptive statistics; elementary probability theory: properties and applications of important probability distributions — binomial, hypergeometric, and multinomial, poisson, normal; sampling distributions; introduction to statistical inference-estimation.

262 Statistical Analysis II (3)
**Prerequisites: BuAd 261.** A continuation of BuAd 261. Topics covered include: methods of statistical inference estimation and hypothesis testing; properties and applications of the t, chi square and f distributions; elementary decision theory; time series construction and analysis — index numbers, trend, seasonal and cyclic analysis; linear regression and correlation.

301 Cost Accounting (3)
**Prerequisites: BuAd 201, 202 or permission of instructor.** Cost accounting provides data for three major purposes: (1) planning and controlling routine operations; (2) non-routine decisions, policy making and long-range planning; and (3) inventory valuation and income determination. Cost accounting is a comprehensive and detailed course in cost analysis, reporting, and control. It identifies many complicating factors and alternative treatments that occur in financial and managerial accounting.

302 Methods and Models of Management Science I (3)
**Prerequisites: BuAd 261, 262 and junior class standing.** Introduces both the viewpoint and methodology of the quantitative approach to decision-making problems. Emphasis is on the presentation and application of established techniques to practical business problems. Computer-based application packages are used as a primary tool of analysis. Topics covered include: mathematical model development; linear and dynamic programming; the distribution and assignment problems; utility theory; statistical decision theory, with emphasis on the Bayesian approach.

303 Methods and Models of Management Science II (3)
**Prerequisites: BuAd 302.** A continuation of BuAd 302. Topics covered include: queuing theory and Markov processes; inventory models; statistical quality control; computer simulation techniques; PERT and CPM analysis; applications to practical business problems emphasizing design, research, model development and analysis in such areas as marketing and finance.

305 Accounting Systems (3)
**Prerequisites: BuAd 201, 202 and 212 or permission of instructor.** The study of modern concepts for accounting systems, including systems design and integration with other information systems. Emphasis will be placed on automated systems, including evaluation of existing systems and the design and installation of new systems.

307 Introduction to International Business (3)
A general overview of foreign trade from the viewpoint of business management. The historical dimension of international business; physical movement of goods; conditions essential for successful trading; the role of government in international trade; how international business policies are developed.

309 Labor-Management Relations (3)
An examination of American trade unions and of unionism. The labor contract, the bargaining processes; the philosophy of unionism, the use of bargaining techniques for non-wage issues; the legal context of labor-management relations; the responsibilities and duties of unions and management; the political-economic impact of unionism.

311 Principles of Marketing (3)
An examination of the marketing structure and of business and economic activities involved in marketing goods. Attention is given to surveys, to distribution channels, to functions, costs and alternative policies, to social and economic consequences, and to governmental supervision and control of the marketing of consumer and industrial goods.

312 Database Management (3)
**Prerequisites: BuAd 212 or permission of instructor.** The structure of computer installations and information systems with emphasis on data management. Data structures; design, creation, editing, updating, sorting; searching, retrieval of sequential and direct-access files; time-shared databases; quality control and recovery. Laboratory exercises for managerial applications.

125

http://catalog.gmu.edu
316 Computer Hardware and Operations (3)
Prerequisite: BuAd 212. A comprehensive coverage of computer system hardware components, treating both their characteristics and suppliers and an examination of computer system operations, including operating systems and job control languages. Student teams will conduct feasibility studies which include system descriptions, hardware selection and operation plans.

318 Computer Languages and Data Structures (3)
Prerequisite: BuAd 212. The study of comparative computer languages, their structure and application, covering machine, assembler and higher level programming languages. Higher level languages will include PL/I, COBOL, and FORTRAN.

320 Distribution Systems (3)
Prerequisite: BuAd 311. The study, using case analyses, of the design, selection, evaluation, and management of the marketing channels of distribution; with particular emphasis on the physical distribution concept and the storage, handling, and transportation functions.

321 Marketing Communications (3)
Prerequisite: BuAd 311. Students with credit from both BuAd 323 and BuAd 328 will not be given credit for this course. A comprehensive examination of the Marketing Communications process as it relates to both the internal and external environments of marketing.

322 Retail Management (3)
Prerequisite: BuAd 311. A comprehensive view of retailing as it relates to the total marketing process. Emphasis on the retail decision alternatives used when formulating retail strategy.

323 Sales Management (3)
Prerequisite: BuAd 311. An examination and evaluation of the sales effort as it relates to the consumer and participants within the marketing channel.

324 Consumer Behavior (3)
Prerequisite: BuAd 311. A study of the concepts, theories and principles underlying the market behavior of consumers. Applications to marketing problem-solving and decision-making.

325 Marketing Research I: Techniques (3)
Prerequisite: BuAd 311. A study of the concepts, theories and principles underlying the marketing research process. Course will focus on the development and evaluation of research designs for gathering marketing information.

326 Marketing Research II: Applications (3)
Prerequisites: BuAd 311 and 325. A continuing study of marketing research methodology in a workshop atmosphere. Emphasis placed upon the execution of marketing research proposals.

327 Industrial and Governmental Marketing (3)
Prerequisite: BuAd 311. An in-depth description, analysis and evaluation of the industrial and governmental marketplaces. Emphasis on the marketing procedures practiced and available to the decision makers within these markets.

328 Advertising Management (3)
Prerequisite: BuAd 311. Advertising and its role as a function of marketing and merchandising; as a tool of management; evaluation, criticism and control of advertising. Measurement of results.

332 Personnel Administration (3)
An examination of the principles and procedures related to the recruitment and selection of a labor force, grievance and disciplinary procedures, problems involved in collective bargaining, pay policies, merit rating, promotion, training, etc., with emphasis upon their relationship to management.

334 Management Problem-Solving and Decision-Making (3)
Prerequisite: BuAd 325. Application of the principles and techniques of management to cases drawn from business and industry. Cases involving hospitals, public agencies, voluntary associations, educational institutions, and general business enterprises are covered. Emphasis is placed on the internal organization and management of the enterprise. This course exposes the student to the purpose, methodology and techniques used to effectively analyze business problems. The complete spectrum of analysis and design is presented from issues, components and definition, to evaluation of alternatives and selection. Applications of systems theory are also explored to enhance student perspective and creativity in problem solving.

335 (formerly 234) Principles of Management (3)
The principles of management; particular emphasis on the theories of management; evolution of management thought; managerial functions of planning, organizing, directing and controlling organizational activity. Practical application of theory to actual business situations.

337 Small Business Management (3)
Prerequisites: Completion of BuAd 201, 202, 232, 335 or permission of instructor. A study of the entrepreneur and entrepreneurial organizations. Emphasis is on the entrepreneurial process and social, economic and cultural factors affecting entrepreneurial behavior. Lectures, case studies, and research are used to illustrate and develop solutions for the general and unique problems facing the small businessman in a variety of high-technology and service-related businesses.

341 Introduction to Business Finance (3)
Prerequisites: Econ 103, 104 and BuAd 201 and 202 or permission of instructor. A survey of business finance with attention directed to financial problems of business firms, large and small, and to methods for solving them.

342 Federal Taxation (3)
Prerequisite: BuAd 342 or permission of the instructor. Practical and theoretical training in the important provisions of federal income tax, advanced problems, tax case research and preparation.

346 Principles of Investments (3)
Prerequisites: BuAd 201, 202 and 341 or permission of instructor. An introduction to considerations of personal and business investments with emphasis upon tests of a good investment, sources of information, types of investments, and mechanics of purchase and sale.

347 Real Property Appraisal (3)
Prerequisites: BuAd 341 and 344. A study of the theory of real estate appraisal including the three traditional approaches of the determination of real property values. The course will consider and evaluate the use of the cost, income, and market approaches to value for various types of real property as well as the reconciliation of varying estimates of value based upon these different approaches.

348 Financial Institutions (3)
Prerequisites: BuAd 341 and Econ 310 or permission of the instructor. Structure, operations, regulations, and economic significance of financial institutions with emphasis on savings, trusts, mortgage lending, consumer lending, regulatory, and investment banking institutions.

349 Investment Analysis and Portfolio Management (3)
Prerequisite: BuAd 346 or permission of instructor. Major emphasis is placed on principles and practices of institutional portfolio management and techniques and standards for selection of specific investments. Stressed are such topics as the relationship between portfolio managers and security analysis, risk-reward characteristics of the portfolio, performance measures, trading practices, liquidity considerations, and the varying functions of the portfolio managers within different institutional settings.

351 Government and Business (3)
Prerequisites: Econ 103 and 104 or permission of instructor. A consideration of public policies intended to resolve or mitigate problems caused by industrial and other combinations, by public utility industries, by government enterprises, and by labor-management relations.

362 Intermediate Applied Statistics for Management (3)
Prerequisites: BuAd 261 and 262. Several of the more advanced statistical methodologies of importance in business applications are treated, including: survey sampling, experimental design, multiple regression and correlation, forecasting. The techniques are applied to such business areas as marketing, personnel, accounting, auditing, and finance. Use of computer packages for analysis is emphasized.
355 Decision Theory and Networks (3)
Prerequisite: BuAd 262. This course will study the systematic evaluation of alternative actions as a basis for choice among them. Analytic techniques such as tree diagrams, Bayesian inference and network models are used extensively. The techniques as presented will be applied to a wide range of business and non-business problems. Network models such as PERT and CPM will also be discussed. Problem analysis will use the case method extensively.

357 Organizational Behavior and Administration (3)
Prerequisite: BuAd 335 or permission of instructor. Perspectives for understanding and predicting behavior in formal organizations as applied to management theory and practice. Basic concepts of organizational behavior such as power and authority, roles, motivation, and group dynamics are explored in relationship to managerial functions such as the design of organizations and the promotion of organizational effectiveness and change.

369 Intermediate Accounting I (3)
Prerequisites: BuAd 201 and 202. Valuation, income measurement, and other theoretical problems in accounting for the financial transactions of an enterprise. Preparation and analysis of financial reports including statements of financial position, earnings statements, combined financial statements, statements of changes in financial position, and financial statements adjusted for price-level changes.

370 Intermediate Accounting II (3)
Prerequisite: BuAd 369. A continuation of Business Administration 369.

371 Advanced Accounting (3)
Prerequisites: BuAd 201, 202, 369 and 370, or permission of instructor. Advanced accounting theory applied to specialized problems in partnerships, ventures, consignments, installment sales, statements of affairs, receiver's accounts, realization and liquidation, reports and consolidation of parent and subsidiary accounts and fund accounting.

377 (formerly 421) Business Law I (3)
A survey of the more important general principles of law which apply to the daily activities of business operations: discussion of concepts and principles relating to the law of contracts, bailments, agency, sales, negotiable instruments, partnerships, bankruptcy, and other topics.

378 (formerly 422) Business Law II (3)
Prerequisite: BuAd 377. A continuation of BuAd 377.

379 Legal Environment of Business (3)
The study of the nature, formation and application of law and its use in the business decision-making process. The legal system as approached from the standpoint of its sources, philosophy, contemporary problems, and trends with special emphasis on business relations.

400 Corporate Accounting (4)
May not be taken for credit toward an undergraduate degree in business administration. A rigorous study of accounting concepts and techniques with emphasis on corporate financial accounting and analysis including an introduction to managerial concepts and techniques. Three lecture hours, three laboratory hours.

401 Auditing (3)
Prerequisites: BuAd 369, 370 or permission of instructor. Audit objectives, reports and procedures are presented as part of the independent public accountant's review along with the newer tools of statistical sampling and EDIP. Professional ethics and legal liabilities are examined as part of the framework within which the CPA works.

403 Advanced Managerial Accounting (3)
Prerequisite: BuAd 301 or permission of the instructor. A study of the quantitative and behavioral aspects of Managerial Accounting as it relates to the organization and the attainment of its goals.

405 Institutional and Governmental Accounting (3)
Prerequisites: BuAd 201 and 202. Advanced study of accounting for governmental, not for profit, and other institutions, including fund accounting and budgetary control.

409 Accounting Seminar (3)
Prerequisites: Senior standing and completion of BuAd 369 and 370. Advanced study of selected topics in accounting, including accounting systems, advanced accounting theory and practice, and topics selected from current accounting literature.

411 Labor Legislation and Collective Bargaining (3)
Prerequisite: BuAd 309. Stresses the institutional framework in which the structure of collective bargaining is cast, focusing primarily on the private sector. The first half of the course is devoted to a coverage of the major pieces of labor legislation, from English Common Law through such recent developments as the Privacy and Freedom of Information Acts. Major legislative trends, reasons for these trends, and their consequences for labor organizations are discussed. The second half includes an analysis of the collective bargaining function, i.e., who participates, what is the legal environment, what techniques are used, what are the major issues, and how to evaluate the end result — the labor contract.

412 Marketing Management (3)
Prerequisite: Six hours of marketing. The managerial aspects of marketing emphasizing the development of marketing strategies and plans and integrating the specific elements of the marketing process. Emphasis on case analysis.

413 Seminar in Marketing (3)
Prerequisite: Nine hours of marketing. In-depth treatment within a seminar format of timely topics with marketing. Emphasis on the ability to synthesize and communicate contemporary issues in marketing.

415 Management Information Systems (3)
Prerequisites: BuAd 202, 212, and 262. An introduction to the separate prior learning on computers and on information-processing needs in different functional areas of administration such as operations, marketing, finance, personnel, accounting and planning and control. Interdisciplinary student-teams design and implement on the computer at least one aspect of a management information system for an organization. Lecture, laboratory, and project.

430 Operations Management (3)
Prerequisites: BuAd 202, 335 and 262. An introduction to operations (production) management as practiced in both manufacturing and service industries. A contemporary approach to the study of the aspects of productivity, technology, new processes, materials, products, equipment, and facilities. Implications of new technology in managing the production (operation) function.

431 The Social Environment of American Business (3)
Prerequisite: Senior class standing or permission of instructor. An introduction to the social position and responsibilities of American business and to the place of ethics and standards in its conduct.

432 Advanced Personnel Administration (3)
Prerequisites: BuAd 262 and 332. An in-depth, experiential examination of the more complex areas of personnel administration: job and task analysis, performance appraisal, selection and placement, wage and salary administration. Develops practical skills for entry-level jobs in the career field of personnel administration.

433 Advanced Financial Management (3)
Prerequisites: ECON 102, 103, BuAd 201, 202, and 341 or permission of instructor. Completion of BuAd 342 is recommended but not required. Functions and objectives of financial management; problems of internal financial analysis; management and control of current assets, cash budgeting, short and intermediate term financing, forecasting and planning the capital structure of the firm; leasing; dividend policy; valuation of the form. Extensive use of business cases.

434 Business Strategy and Policy (3)
Prerequisite: Final semester. A senior-level, capstone course designed to acquaint the student with the structure and management of various types of organization and the shaping of business policy. The principles of management and the managerial functions of planning, organizing, staffing, directing, and controlling are related through case studies, to actual business subjects in the business curriculum, and will stress techniques of managerial decision-making, as they relate to business strategy formation; in large, medium, and small enterprises.

441 Real Estate Law (3)
Prerequisites: BuAd 377 and 378, or permission of instructor. The study of the basic principles of modern real estate law including classifications of property, types of ownership, acquisition and transfer, leasing, government regulation and taxation. Emphasis will be placed on the real estate sale including the contract of sale.
442 Real Estate Finance (3)
Prerequisites: BuAd 341 and 344. The study of how those financial institutions which provide real estate financing acquire and manage their funds. Additionally, consideration is given to the various methods and techniques of financing alternative real estate projects.

446 Money and Capital Markets (3)
Prerequisites: BuAd 341 and Econ 310. A study of the instruments of the money and capital markets and the interrelationships between these instruments in the financial markets.

447 (formerly 347) Futures Markets (3)
Prerequisites: BuAd 341 and 346 or permission of instructor. An examination of the futures markets including the commodity exchanges, the International Monetary Market, and the stock option markets as they function to provide a pricing and marketing function for industry; as investment vehicles; and as a way of reducing economic risks through hedging.

448 Seminar in Finance (3)
Prerequisites: BuAd 346 and 348 or permission of instructor. An in-depth analysis of selected topics in security analysis, investment banking, portfolio construction, financial management and financial institutions.

451 Optimization Models (3)
Prerequisites: BuAd 262 and 302. An examination of optimization models as applied to business problems. Both linear and nonlinear models are considered, including dynamic, integer and goal programming. Applications to management, finance, and marketing are treated.

452 Forecasting Methods for Management (3)
Prerequisite: BuAd 262. An introduction to forecasting, examining alternative models and their application to a variety of business applications. Topics covered will include: trend analysis, moving averages, exponential smoothing, adaptive models, multiple regression and correlation, time series analysis.

453 Statistical Analysis (4)
Prerequisites: Six credits of college mathematics (Math 107, 108 is recommended). Not for credit toward an undergraduate degree in business administration. The use of statistical methods as scientific tools in the analysis of practical problems in business and economics. Topics covered include: descriptive statistics; probability theory; probability distributions; sampling distribution; inference — estimation and hypothesis testing; elementary decision theory; time series analysis; linear regression and correlation; the analysis of variance. Three lecture hours, three laboratory hours.

457 Organization Theory and Development (3)
Prerequisite: BuAd 357. The study of complex organizations from the perspective of developing theoretical models and applied research designs. Particular emphasis on the systems approach as an integrative framework. Analytical and experimental exercises are used to acquaint the student with organization development techniques for effective management of change.

475 Seminar in Management Theory (3)
Prerequisites: Completion of BuAd 335, six hours of management work beyond BuAd 335, and senior class standing or permission of instructor. Advanced study of management concepts and theories designed to deepen, expand, and integrate the student's knowledge of management theory and practice. Included is an intensive examination of major writers' and practitioners' contributions to management theory. Significant contemporary research findings will be explored. Also included are selected topics for research and study.

499 Independent Study in Business Administration (1-3)
Prerequisites: Senior class standing, 24 hours of required business administration courses, including principles of marketing and introduction to business finance. A research proposal approved in advance by the instructor and the Dean. Investigation of a business problem according to individual interest of the student, with emphasis on research methods.
General Degree Program Description

The Bachelor of Individualized Study degree program offers Northern Virginians an academically sound program providing an alternative to traditionally structured baccalaureate degrees. It provides each student, guided by his/her George Mason University academic adviser, an opportunity to formulate a course of study which complements individual needs and interests. The choices in any given instance are inter-institutional, individualized, and interdisciplinary, without a major subject as required traditionally.

The Bachelor of Individualized Study (BIS) degree is conferred by George Mason University in partial fulfillment of its service obligation to Northern Virginians.

The student in the BIS may fulfill his/her individualized program of study by calling upon the undergraduate resources of the Consortium for Continuing Education in Northern Virginia. The Consortium institutions include George Mason University; Northern Virginia Community College; Falls Church Regional Center of the University of Virginia and Marymount College of Virginia.

The Bachelor of Individualized Study degree program is inter-institutional, with all courses in the curriculum of each participating undergraduate Consortium institution available, as appropriate, to help meet the programmatic needs of each student. In addition, a student may draw upon such non-traditional modes of instruction as newspaper, television, and correspondence courses, CLEP subject exams, USAF service-connected schools, and independent study, for knowledge and progress toward completion of his/her program as agreed by the academic adviser.

In acquiring credits towards a BIS degree, a student may proceed at his/her own pace. The program recognizes that not all knowledge is gained in credits in the classroom. It emphasizes the development and evaluation of the student’s ability, not the manner in which the knowledge was acquired. The program is aimed at meeting the varied needs of mature adult students who may not need or desire the traditional Bachelor of Science or Bachelor of Arts degree, or who are confronted with obstacles barring their pursuit of a more conventional degree.

The program recognizes the breadth of a student’s background by providing for generous transfer of credits earned at other times and places and by providing procedures to translate knowledge gained from life/work experience or self-education into academic credits as appropriate.

The design of a program of study is a joint venture between the student and the George Mason University academic adviser, and it thus reflects the individual needs and interests of the student. The requirements of the BIS degree program add to its integrity. The student-developed core of individualized study prevents the degree from being merely an assemblage of credits. The general education requirement provides some experience in two of three broad areas of basic knowledge commonly integral to a university education, while allowing total flexibility of course selection within these areas. There are, however, no required courses in any part of the program, and the individualized study core may be an inter-disciplinary or highly individualized selection of courses rather than the traditional major.

Other features such as the absence of on-campus residence requirements and time limits for program completion, a minimal number of hours (30) to be completed within the Consortium, and a general philosophical approach which respects the student by providing an opportunity to fashion his/her own curriculum, add to the program’s flexibility.

Tuition and Fees

At George Mason, all University tuition and fees apply; for details, see the section of this catalog on tuition and fees. For information about costs at the other Consortium institutions, consult the appropriate publications.

Eligibility for the Program

The program is open to persons 25 years-of-age or older who have indicated their commitment to adult continuing education by accumulating 30 semester-hours of college-level credit acquired at any accredited institution.

At least 15 of the 30 semester-hours required for acceptance into the program must be of conventional classroom instruction; the remaining 15 hours of the initial 30 may have been earned by CLEP and USAF subject examinations, correspondence, television, or other non-traditional modes of imparting and measuring knowledge, and independent study administered by an accredited institution of higher learning. Additional hours earned by non-traditional methods may be applied after entry into the program. The hours presented for acceptance, however, may not include credits awarded by other colleges or universities for life/work experiences by means other than by examination. Knowledge claimed on the basis of life/work experience must be validated by George Mason following acceptance into the program.

Persons seeking acceptance must be able to show a 2.000 grade point average (g.p.a.) on a 4.000 scale on work presented for acceptance but may include in the graded transfer work hours of “D” offset by higher grades. If necessary, the 30 hours required for acceptance may be selected from a larger number of courses taken in order to show the requisite 2.000 g.p.a. on entry credits.

No time limit is attached to the validity of coursework brought into the program by transfer.

Application for Admission and Acceptance

Because of the special character of the BIS program, a potential BIS student must first contact the BIS Coordinator in the University’s Office of Extended Studies. The applicant must also seek undergraduate admission to George Mason University through the Admissions Office. Concurrent with admission application to the University, a student’s application for acceptance into the BIS program will be evaluated based on a personal counseling session which can be arranged in the Office of Extended Studies by calling 323-2436. During a personal interview the BIS Coordinator will help each student determine objectives, plans, and career orientation; each will be asked to develop a written narrative of these prior to acceptance into the BIS program. If a student’s request for BIS program status is denied, the student may appeal the decision to the Director of the Office of Extended Studies, or the student may decide to pursue a more conventional degree within one of the three undergraduate units of the University following regular University admission.

129

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Requirements and Transfer

The BIS degree requires a total of 120 semester credit hours or the equivalent with a 2.000 g.p.a. on a 4.000 scale on all graded coursework. In the event a student has accumulated more than 120 credit hours, he/she may select that combination which produces the highest g.p.a.

It is theoretically possible for students after acceptance and academic approval to transfer all credit hours required for the program except for the three credit hour project (see project below), but 30 of the total hours must be completed within the Consortium.

A student may theoretically accumulate as many as 102 semester credit hours in this program by means other than normal enrollment in and attendance at conventional classes. Hence, the program will accommodate various combinations of non-conventional and conventional work almost without internal limitation. Only 15 hours of conventionally earned credits and the three-hour project mentioned below—a total of 18 program hours—may not be acquired by non-traditional methods.

Counseling and Advising

After a student is accepted into the BIS program, the BIS Coordinator in the Office of Extended Studies at George Mason University arranges program planning and academic advising. A student planning a program at any member institution in anticipation of the BIS degree may be accepted after accumulating 30 semester-hours of coursework. Conversely, it is theoretically possible that a student might, under certain circumstances, delay entry by continuing to select courses at any Consortium school, transferring to George Mason only to complete the required project. In this latter case, however, the courses selected before entry must contain 30 semester-hours of work that are acceptable to the George Mason adviser as constituting an individualized core of study appropriate to the student’s needs or interests. The degree program does not require any fixed amount of coursework to be completed at any one participating institution.

The BIS Coordinator is responsible for general orientation, for a BIS acceptance decision, for counseling students about program procedures and requirements, and for administering or coordinating examinations used to validate knowledge gained through non-traditional means. The professional counselor refers each accepted BIS student to one or more approved advisers from the George Mason faculty with whom the student will plan and under whose supervision the student will carry out the academic program, especially his/her “Individualized Study Core.” The assignment of a student’s academic adviser is deemed permanent for the duration of the program. However, a change may be made if there is a significant change in the student’s primary focus.

Credits Earned for Life/Work Experiences

The BIS program is designed principally for adult students, most of whom will have acquired a good deal of experience and knowledge through work, reading, and travel. However, no credit will be granted within the program for life/work experience per se (including military service, regardless of the length of service, rank attained, or duties performed). Academic credit for knowledge gained through self-instruction, work, or other life experiences will be granted only when the student’s possession of academically relevant information has been validated. Students who wish to qualify for credit based on their experience and knowledge should arrange to have it appropriately presented for evaluation.

Validation will normally be accomplished by examination—by a nationally prepared and normed test, an end-of-course examination, or a specially prepared local examination. A student will receive full course credit by scoring in the 50th percentile or higher on the appropriate nationally prepared examination or by scoring 60 percent or higher on the appropriate local examination.

In the event that no examination can be devised to validate possession of the knowledge for which credit is sought, the academic advisor may assemble a committee of three persons qualified to evaluate the knowledge and fix the credit to be granted. Such a committee will be used only as a last resort. The life/work experiences at issue must be explicit enough to be validated with reasonable objectivity and precision. A committee may grant credit not to exceed four semester-hours; no student, however, may be awarded more than four semester-hours of credit for life/work experience except by examination.

Requirements within the BIS

Three distinctive phases are involved in the BIS program but are not sequentially related.

1. General Education: While this degree program is designed to meet the widest possible range of individualized educational objectives, there are three general areas of knowledge that cannot be wholly omitted from university education: humanities, social and behavioral sciences, and science and mathematics. To gain exposure to these areas of knowledge, each student will earn at least 12 semester-hours of credit in each of two of these areas. The student may choose which areas he/she wishes to complete and which courses he/she will elect to complete them. Courses need not be in a single discipline within a given area, and those selected may also count, if appropriate, as parts of the individualized study core. Transfer credits and credits obtained by extra-classroom means may be used to satisfy the areas of study. A representative but not exclusive enumeration of disciplines by broad curricular area is set out here as a guide.

Humanities
- English
- Fine and Applied Arts
- Humanities
- Language
- Linguistics
- Literature
- Music
- Philosophy
- Religion
- Speech

Sciences & Mathematics
- Astronomy
- Biology
- Botany
- Chemistry
- Geology
- Mathematics
- Physics
- Physiology
- Zoology

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Social & Behavioral Sciences
   Anthropology
   Economics
   Geography
   History
   Political Science
   Psychology
   Sociology

2. Individualized Study Core: The student, with his/her academic adviser, shall design an individualized study core of at least 30 semester-hours, with at least 12 of the 30 hours of upper-division level or its equivalent, as measured by the curriculum of George Mason. The core will consist of a pattern of study selected according to the objectives and interests of the student. It may be developed across traditional disciplinary lines so as to provide a thematic program, drawing upon the resources of several disciplines—e.g., environmental studies, regional studies, public administration. The student may also opt for a more traditional approach by concentrating in one discipline. When designing the pattern of courses, the student may draw upon the full curricular resources of the Consortium, plus non-traditional resources and/or modes of instruction as agreed upon by the student and the academic adviser.

3. Project: At the beginning of the program, the student with the adviser will design a project directly related to the individualized study core to be completed during the student’s program. The project may be integrative in character, or may augment study by providing an in-depth analysis of some work-related task or phase of study. Once the project proposal is approved by the academic adviser and accepted by the BIS Coordinator, actual work on the project will begin whenever it is deemed most appropriate, depending upon the nature of the project and its relation to the student’s total program. In the semester in which completion of the degree program is anticipated, the BIS candidate should register for “BIS 490: Bachelor of Individualized Study Project (3).” The completed project must be submitted to the academic adviser at least two weeks prior to the last day of classes of the semester in which credit is sought.

The project will be evaluated by a three-member committee consisting of the academic adviser and two other Consortium faculty members—one selected by the student and one chosen by the academic adviser. The three hours of credit earned upon successful completion of the project are in addition to the 12 hours of upper-division work required in the core.

Summary
The student’s program will be completed when the admitted and accepted student has:
1. accumulated the equivalent of 120 semester credit hours; 30 of these hours must be completed within the Consortium;
2. earned a 2.000 g.p.a. on all coursework offered in completion of this program;
3. presented work in one or more disciplines equivalent to 12 semester-hours of credit in each of two curricular areas (humanities, sciences and mathematics, social and behavioral sciences);
4. finished an individualized core of study equivalent to at least 30 semester-hours of credit; at least 12 of which must be upper division; and
5. successfully completed BIS 490: Bachelor of Individualized Study Project for three semester-hours credit.

Potential Northern Virginia Students
Although the population of Northern Virginia is characterized by an advanced level of educational attainment when measured by national statistics, it has nevertheless large numbers of individuals who could benefit from non-traditional educational opportunities. Approximately 23,000 veterans of the Vietnam War in the Northern Virginia area, women whose educations were interrupted or deferred by other responsibilities, retired persons pursuing academic interests for sheer satisfaction, and people from varying cultural, national, and ethnic backgrounds, are all potential students in the non-traditional degree program.

At present, in Northern Virginia, students in non-traditional programs vary in age from the traditional 18-year-old freshman to the 70-year-old-plus retiree. Eighty-five per cent of them are employed. They enroll in programs to advance their knowledge in professional areas, in the liberal arts and sciences, and in special interests and concerns.

Educational Resources Available to Bachelor of Individualized Study Students
Students in the Bachelor of Individualized Study Program have available the libraries and other resources supporting the instruction of Consortium schools. In addition to libraries and other supporting instructional facilities at participating institutions, it is presumed that instructors and students will use the resources of public library systems, professional organizations, neighboring academic institutions, government agencies, museums, art galleries, theaters, and scientific and other societies in the Metropolitan Washington area. The resources of the area are incalculable and need only be incorporated by imaginative faculty and students into the learning processes of regional institutions.
Directory

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Louise F. Lowe, Special Assistant to the President

Admissions
Clelon A. Blount, Jr., M.A., Director

Equal Opportunity and Affirmative Action
Carl Cannon, J.D., Director

Minority Affairs
Lillian D. Anthony-Welch, Ed.D., Director

Public Relations and Publications
Arthur E. Portnow, M.A., Director of Public Relations
Robert T. Hickey, B.A., Coordinator of Publications

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Office of the Vice President for Academic Affairs

Robert C. Krug, Ph.D., Vice President
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College of Arts and Sciences
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College of Professional Studies
Clayton M. Schindler, Ph.D., Dean

School of Business Administration
Lloyd M. DeBoer, Ph.D., Dean

Graduate School
William S. Willis, Doct. Univ. (Paris), Dean
John C. Evans, Ph.D., Assistant Dean

Summer Session
William C. Johnston, Ph.D., Dean

Academic Affairs
Lewis C. Jones, Jr., Ed.S., Assistant to the Vice President

Academic Assistance Programs
Robert L. Johnson, M.S., Director

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**President**
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**Vice President**
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**Executive Director**
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The George Mason University Foundation is an autonomous organization designed to enrich programs of the University above and beyond that which can be provided by state funds. Money from the Foundation is used for faculty funding, student scholarships, endowments and grants for special research. The Foundation operates solely on private philanthropies.

Patriot Education Foundation, Inc.

**President**
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**President Elect**
James E. Jones

**Acting Executive Director**
Jay W. Marsh

The Patriot Educational Foundation is formed for educational, charitable and social purposes: specifically for creating the financial support essential in making George Mason University teams competitive in intercollegiate competition. All money contributed to the George Mason University Patriot Educational Foundation will be used to defray scholarship costs for student-athletes at the University. All activities of the corporation will be administered in accord with the latest National Collegiate Athletic Association regulations, policies, and procedures with no funds being used for recruitment purposes.

“G.M.” Club Foundation Inc.

**President**
Gary R. Roth

**President Elect**
Glynn Smith

**Treasurer**
Jay W. Marsh

The “GM” Club Foundation is formed for education, charitable and social purposes: specifically for creating lasting social and educational relationships among all wearers of the “GM” Varsity letter award; for promoting the interest and welfare of athletics and physical education programs; for encouraging participation in all sports and for serving George Mason University to enrich the physical facilities, equipment and programs associated with intramural and intercollegiate competition.

Alumni Association of George Mason University

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**Vice President**
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**Secretary**
Sonia Bacon

**Treasurer**
Cherie A. Hutchison

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Joel A. Gabriel

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Michael O. Pritz

**Membership Chairman**
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**Gifts and Bequests**
There are almost limitless opportunities for private support, through gifts and bequests, to assist George Mason University in becoming a stronger and more dynamic institution. The Development Office would welcome the occasion to discuss with you the vast assistance which you may provide through philanthropy to George Mason University. Your inquiry may be by telephone, 323-2136 or 323-2137, or may be addressed to: Development Office, George Mason University, 4400 University Drive, Fairfax, Virginia 22030.
Departmental Scholarships

Applied Music Scholarships. A limited number of applied music scholarships are available to incoming freshmen at George Mason University. Application should be made to the Department of Fine and Performing Arts.

Student Education Association Endowment Scholarships Fund. This fund provides grants to a limited number of eligible George Mason University students of demonstrated scholastic achievement, during their student teaching semester.

Woodrow Wilson Foundation. The Woodrow Wilson Foundation provides funds for graduate fellowships to students planning college teaching careers in a liberal arts field. Although lack of funds curtailed grants in recent years, seniors interested in applying for such grants as become available must be nominated by one of their professors in October. Consult the departmental adviser or the local Woodrow Wilson campus representative for further information.

Awards

University Awards

Wall Street Journal Award—1976
Martha W. Denham

Weber H. Peterson Memorial Award—1976
Kathy S. Mont

Gayle C. Solomon Memorial Prize in Mathematics & Physics—1976
William B. Johnson

Athletic, 1975-76

Most Valuable Baseball Player — Tim Prime
Most Valuable Golfer — Kurt Nagle
Most Valuable Men’s Tennis Players — Jim Black, Mark Miller
Most Valuable Wrestler — Bill Cameron
Most Valuable Women’s Basketball Player — Edyth Fowlkes
Most Valuable Women’s Tennis Player — Lois Tuey
Most Valuable Women’s Volleyball Player — Laura Gibson

1976-77 Faculty

Emeritus Faculty
Lorin Andrew Thompson, B.A., M.S., Ph.D., President Emeritus

Retired Faculty
Louis John Aebischer, B.S., M.S., Ed.S., Associate Professor of Health and Physical Education
Marion Bartlett, B.S., Ph.D., Associate Professor of Psychology
Hubert Merrill Cole, B.S., M.S., Associate Professor of Mathematics
Robert Wendell Evans, A.B., M.A., Ed.D., Professor of Education
Helen Ludwig Sehr, A.B., A.M., Assistant Professor of German
Ludolph Frisch Welanetz, M.E., M.M.E., Ph.D., Assistant Professor of Engineering


Ackerman, Billie Louise, Lecturer in Education. B.A., University of Texas, 1957; M.A., University of Kansas, 1973; Ph.D., University of Maryland, 1975.

Adams, Henry Patteson, Professor, Vice President for Business and Finance. B.S., United States Naval Academy, 1939.


A’Hearn, Maxine Clara, Lecturer in Biology. B.S., Creighton University, 1961; M.S., University of Wisconsin, 1962; Ph.D., University of Wisconsin, 1966.

Ailingter, Rita Louise, Associate Professor of Nursing. B.S., Boston College, 1961; M.S., Boston University, 1963; M.A., The Catholic University of America, 1972; Ph.D., The Catholic University of America, 1974.


Allen, John Ashley, Assistant Professor of Psychology. A.B., Duke University, 1963; M.S., North Carolina State University, 1969; Ph.D., North Carolina State University, 1971.

Altman, Charlotte Hall, Associate Professor of Psychology. B.A., University of Minnesota, 1929; M.A., Clark University, 1933; Ph.D., University of Chicago, 1954.


Andrykovitch, George Eugene, Associate Professor of Biology. B.S., University of Pittsburgh, 1962; M.S., University of Pittsburgh, 1965; Ph.D., University of Maryland, 1968.

Appell, Louise Sophia, Lecturer in Education. A.B., Smith College, 1951; M.A., University of Kentucky, 1966; Ph.D., University of Kentucky, 1972.


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Audiet, Devereux Oldfield, Lecturer in Biology. B.S., Mary Washington College, 1958; Ph.D., Georgetown University, 1973.  
Austere, Victor, Assistant Professor of Education. B.S.M., DePauw University, 1931; M.Ed., University of Maryland, 1954.  
Baker, Paul Volker, Coordinator of Cooperative Education/Instructor. A.A., Broward Community College, 1971; B.A., Christopher Newport College, 1974; M.S. Ed., Old Dominion University, 1976.  
Barlett, Steven, Lecturer in Economics. B.S., University of Oregon, 1962; M.S., University of Oregon, 1967; Ph.D., University of Oregon, 1968.  
Batlis, Nick Charles, Assistant Professor of Psychology. A.B., Rutgers University, 1965; M.S., Ohio University, 1972; Ph.D., Ohio University, 1974.  
Baum, Richard Frederick, Assistant Professor of Business Administration. B.A., Oberlin College, 1962; M.S., University of Michigan, 1964; Ph.D., University of Michigan, 1969.  
Bausch, Richard Carl, Instructor in English. B.A., George Mason University, 1974; M.F.A., University of Iowa, 1975.  
Baxter, Ralph Clayton, Professor of English, Associate Vice President for Academic Affairs. A.B., University of Detroit, 1958; M.A., Wayne State University, 1959; Ph.D., Wayne State University, 1964.  
Bennett, James Thomas, Associate Professor of Economics. B.S., Case Institute of Technology, 1964; M.S., Case Institute of Technology, 1966; Ph.D., Case Western Reserve University, 1970.  
Bergoffen, Debra Beth, Assistant Professor of Philosophy. A.B., Sycracuse University, 1962; M.A., Georgetown University, 1966; Ph.D., Georgetown University, 1974.  
Berl, Tatiana Grivisky, Lecturer in Russian. B.S., Georgetown University, 1974; M.S., Georgetown University, 1968.  
Berry, Alan Douglas, Assistant Professor of Chemistry. B.S., Duke University, 1965; Ph.D., University of Pennsylvania, 1970.  
Bibb, John James, Jr., Lecturer in Psychology. B.A., University of Virginia, 1960; M.Ed., University of Virginia, 1960; Ph.D., University of Virginia, 1964.  
Bindel, Henry Joseph, Jr., Associate Professor of Education. B.S., Eastern Kentucky University, 1950; M.A., Eastern Kentucky University, 1951; Ed.D., University of Maryland, 1971.  
Bjorklund, Richard Allen, Assistant Professor of Business Administration. B.S., University of Massachusetts, 1967; M.B.A., University of Massachusetts, 1971; D.B.A., Indiana University, 1977.  
Black, Wilson Murray, Associate Professor of Engineering Physics. Acting Chairman, Department of Physics (second semester). B.E.E., University of Virginia, 1962; M.S.E.E., Pennsylvania State University, 1967; Ph.D., Pennsylvania State University, 1971.  
Bloch, Howard Ruben, Professor of Economics. A.B., Duke University, 1958; Ph.D., Princeton University, 1964.  
Bloecker, Victor, Jr., Assistant Professor of Education, Director of Media Services. B.S., University of Pennsylvania, 1942; A.M., University of Southern California, 1950.  
Blount, Clenton Alden, Jr., Associate Professor, Director of Admissions. B.S., Virginia Union University, 1962; M.A., Hampton Institute, 1965.  
Bolstein, Arnold Richard, Assistant Professor of Mathematics. B.A., Wagner College, 1962; M.S., Purdue University, 1964; Ph.D., Purdue University, 1967.  
Boothe, Leon Estel, Professor of History, Dean of the College of Arts and Sciences. B.S., University of Missouri, 1960; A.M., University of Missouri, 1962; Ph.D., University of Illinois, 1966.  
Borkman, Thomasina Smith, Associate Professor of Sociology. A.B., Occidental College, 1958; A.M., Columbia University, 1959; Ph.D., Columbia University, 1969.  
Bowen, Larry Sylvester, Professor of Education, Chairman, Department of Education. A.B., San Francisco State College, 1959; M.S., California State College at Hayward, 1968; Ph.D., Ohio State University, 1970.  
Boyer, Larry Lee, Lecturer in Physics. B.A., Deane College, 1965; M.S., University of Nebraska, 1968; Ph.D., University of Nebraska, 1970.  
Bradley, Mary Patricia, Assistant Professor of Mathematics. A.B., The Catholic University of America, 1970; M.A., Georgetown University, 1972; Ph.D., Georgetown University, 1975.  
Brawley, Thomas Michael, Assistant Professor of Music. B.M., Greensboro College, 1965; M.M., Northwestern University, 1967; Ph.D., Northwestern University, 1975.  
Brooks, Nancy Cook, Assistant Professor of Spanish. B.A., University of Kansas, 1947; M.A., University of Kansas, 1948.  
Brooks, William Ward, Assistant Professor of Business Administration. A.B., Duke University, 1959; Ph.D., University of North Carolina at Chapel Hill, 1976.  
Brown, Lorraine Anne, Associate Professor of English. B.A., University of Michigan, 1951; M.A., University of Michigan, 1961; Ph.D., University of Maryland, 1963.  
Brown, Stephen Jeffry, Professor of English. B.A., Yale University, 1950; B.A., Cambridge University, 1952; M.A., Yale University, 1954; Ph.D., Yale University, 1959.


Brunette, Peter Clark, Jr., Assistant Professor of English. B.A., Duquesne University, 1965; M.A., Duquesne University, 1967; Ph.D., University of Wisconsin-Madison, 1975.


Buffardi, Louis Carl, Assistant Professor of Psychology. A.B., University of Rochester, 1964; M.A., Fordham University, 1966; Ph.D., University of Massachusetts, 1970.

Buffill, Jose Angel, Assistant Professor of Spanish. B.A., Instituto Del Vedado, 1942; Doctor EnDerecho, University of Havana, 1955; M.A., State University of New York at Buffalo, 1967.


Burch, Rebecca Elaine, Lecturer in Physical Education. B.S., Longwood College, 1974; M.S., Madison College, 1976.


Cabell, Mary Katherine, Associate Professor of Mathematics. B.A., University of Tennessee, 1956; M.A., University of Virginia, 1957; Ph.D., University of Virginia, 1960.


Carr, William Edward, Lecturer in Education. B.A., Drew University, 1944; M.S., Howard University, 1956.

Carrig, James Edward, Assistant Professor of Mathematics. A.B., Fordham College, 1967; Ph.D., Rutgers University, 1976.


Cassara, Ernest, Professor of History. A.B., Tufts College, 1952; B.D., Tufts University, 1954; Ph.D., Boston University, 1957.


Chaires, Ruben, Assistant Professor of Biology. B.A., University of California at Los Angeles, 1965; Ph.D., Oregon State University, 1970.

Chambers, Barbara Formm, Assistant Professor of Mathematics. B.S., University of Alabama, 1962; M.A., University of Alabama, 1964; Ph.D., University of Alabama, 1969.

Chernay, Gloria Jean, Acting Assistant Professor of Education. B.S., Indiana State University, 1959; M.S., Indiana University, 1971.

Chung, Jae Wan, Assistant Professor of Economics. B.C., Seoul National University, 1962; M.C., Seoul National University, 1965; M.A., State University of New York at Buffalo, 1969; Ph.D., New York University, 1972.


Clarke, Robert Lewis, Lecturer in History. A.B., St. Augustine's College, 1942; M.A., University of Wisconsin, 1948.

Cloyd, Helen Mary, Associate Professor of Business Administration. B.S., Eastern Michigan University, 1953; M.A., Wayne State University, 1956; Ph.D., Michigan State University, 1963.


Cohelan, Evelyn Elis, Professor of Nursing, Chairman, Department of Nursing. B.S., University of California at Berkeley, 1951; M.S., University of California at Berkeley, 1953; Ed.D., University of California, Berkeley, 1963.


Connelly, Jacqueline Anne, Lecturer in Nursing. B.S.N., St. Louis University, 1960; M.S.N., The Catholic University of America, 1968.

Cooper, George David, Associate Professor of Psychology. A.B., Shepherd College, 1957; Ph.D., Duke University, 1962.


Cox, Robert George, Lecturer in Biology. B.S., University of Maryland, 1965; M.S., University of Maryland, 1967.

Cox, Robert Willard, Lecturer in Government and Politics. A.B., Syracuse University, 1937; M.S.P.A., Syracuse University, 1942.

Coxzens, Robert Francis, Professor of Chemistry. B.S., University of Virginia, 1963; Ph.D., University of Virginia, 1966.

Cogg, Edward E., Lecturer in Mathematics. B.A., Rice University, 1967; M.S., Rice University, 1969; Ph.D., Rice University, 1971.

Crane, Carol Louise, Lecturer in Mathematics Education. B.A., University of Northern Iowa, 1961; M.A., University of Northern Iowa, 1976.

Croby, Robert M. N., Lecturer in Education. M.D., University of Maryland, 1943.


Cunningham, John James, Lecturer in Biology. B.S., Purdue University, 1970; M.S., Purdue University, 1972.


Davies, Keith Maurice, Assistant Professor of Chemistry. B.Sc., University of Wales, 1964; Ph.D., University of Wales, 1967.

Deanhardt, Marshall Lynn, Assistant Professor of Chemistry. B.S., Clemson University, 1970; Ph.D., North Carolina State University at Raleigh, 1975.

DeBoer, Lloyd Martin, Professor of Business Administration, Chairman, Department of Business Administration. B.S., University of Illinois, 1947; M.B.A., Harvard University, 1950; Ph.D., University of Illinois, 1957.


DeMarce, Virginia Marie, Assistant Professor of History, (on leave second semester). A.B., University of Missouri, 1961; M.A., Stanford University, 1963; Ph.D., Stanford University, 1967.


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Deshmukh, Marion Fishel, Assistant Professor of History, B.A., University of California at Los Angeles, 1966; M.A., Columbia University, 1967; Ph.D., Columbia University, 1975.

DeVaul, Diane Louise, Lecturer in Sociology, B.A., University of Iowa, 1965; M.A., University of Maryland, 1972.

di Bonaventura, Sam Albert, Professor of Music, Chairman, Department of Fine and Performing Arts. B.S., Juilliard School of Music, 1951; B.M., Yale University, 1953; M.M., Yale University, 1954; M.A., Harvard University, 1961; Peabody Conservatory of Music, 1964.

DiLoreto, Ann Evelyn, Assistant Professor of Nursing, B.S.N., St. Anselm's College, 1957; M.S.N., The Catholic University of America, 1973.

Dobson Jr., Edward Clark, Associate Professor of Education. B.M.E., Florida State University, 1961; M.S., Florida State University, 1969; Ph.D., Florida State University, 1976.

Dorey, Frederick James, Associate Professor of Mathematics (on leave). B.A., Boston College, 1964; M.A., Boston College, 1966; Ph.D., University of Massachusetts, 1969.


Draper, Richard Noel, Associate Professor of Mathematics. B.S., Baldwin-Wallace College, 1959; Ph.D., Johns Hopkins University, 1966.

Duck, Lloyd Earl, Assistant Professor of Education. A.B., College of William and Mary, 1966; M.A.T., University of Virginia, 1968; Ph.D., University of Virginia, 1974.

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143
Silva, Mary Elizabeth, Associate Professor of Nursing. B.S., The Ohio State University, 1962; M.S., The Ohio State University, 1963; Ph.D., University of Maryland, 1976.


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Skog, Judith Ellen, Assistant Professor of Biology. B.S., Tufts University, 1966; M.S., University of Connecticut, 1968; Ph.D., Cornell University, 1972.

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Smith, John Melvin, Professor of Mathematics Education, Chairman, Department of General Studies; B.S., University of Richmond, 1958; M.A., University of Maryland, 1961; Ph.D., University of Maryland, 1970.

Smith, Kitty Simpson, Associate Professor of Nursing. B.S.N., The Catholic University of America, 1958; M.S.N., The Catholic University of America, 1960.

Smith, Robert Franklin, Assistant Professor of Psychology. B.S., University of Florida, 1971; M.A., University of Wisconsin, 1973; Ph.D., University of Wisconsin, 1976.


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Taub, Stephan Robert, Professor of Biology, Chairman, Department of Biology. A.B., University of Rochester, 1955; Ph.D., Indiana University, 1961.

Tavani, Nicholas John, Associate Professor of Sociology. A.B., Temple University, 1951; B.D., Reformed Episcopal Seminary, 1957; M.A., University of Maryland, 1965; Ph.D., University of Maryland 1969.


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Tilley, Gregory Brown, Lecturer in Geography. B.A., University of Maryland, 1972; M.A., Michigan State University, 1974.


Turner, Robert Amrine, Associate Professor of Mathematics. B.S., United States Military Academy, 1933; M.A.T., Duke University, 1964.


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Walker, George, Assistant Professor of History. B.A., Lincoln University, 1970; M.A., Columbia University, 1971; Ph.D., Columbia University, 1975.

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http://catalog.gmu.edu
A.
Absences from examinations, 28, 33
Academic:
   achievement, 38; assistance, 12;
   load, 35; policies & procedures;
   27-36, 106; programs, 34; standing, 9
Accreditation, inside front cover
Adding a Course, 33
Administration, 132
Admissions, 22-24:
   advisory committee, 24; conditional, 24; Extended Studies Enrollment, 24; foreign students, 24; from another college, 24; from secondary school, 23; student teaching, 111; teacher education program, 111; two-year engineering program, 23; Project Ahead, 24
Advanced Placement, 29
   in foreign languages, 28; with credit, 29; without credit, 29
Aid Programs, 15
American Minority Cultures, 12
American Studies, 40
Anthropology courses, 105
Application for Degree, 36
Art courses, 64
Associations, 133
Astronomy courses, 94
Athletic Activities, 17-18
Attendance, 33
Audit, 28
Awards, 134

B.
Bachelor of Arts Degrees:
   American Studies, 40; Art, 64; Biology, 50; Chemistry, 55; Economics, 58; Education, 111; European Studies, 43, English, 60; French, 76; German, 78; Government & Politics, 99; History, 82; in the College of Arts & Sciences, 38; International Studies, 101; Latin American Studies, 46; Mathematics, 86; Music, 68; Philosophy, 88; Psychology, 94; Requirements, 38; Sociology, 102; Spanish, 80
   Bachelor of Individualized Study, 10, 128
   Bachelor of Music, 39
Bachelor of Science Degrees:
   Biology, 50; Business Administration, 124; Chemistry, 55; Economics, 58; Education, 112; Elementary Education, 112; Health & Physical Education, 116; in the College of Arts & Sciences, 39; in the College of Professional Studies, 107; Law Enforcement, 47; Mathematics, 86; Nursing, 120; Physics, 92; Public Administration, 102; Requirements, 39; Social Welfare, 105
   Basic Educational Opportunity Grant, 16
   Biology, 50
   Buildings, inside back cover
   Business Administration, 124

C.
Calendar, 4-5
Campus Ministry, 18
Cancelling Registration, 33
Career Planning & Placement, 15

D.
Dance Courses, 66, 118
Dean's List, 33
Deferred Payment Plan, 25
Degree Programs, 2
Degree Requirements:
   Bachelor of Arts, 38; Bachelor of Music, 39; Bachelor of Science, 39 – See also individual departments
   Delayed Registration, 33
   Departmental Scholarships, 134
   Deposits, 26
   Directory, 132
   Dramatic Arts, 66
   Dropping a Course, 33
   Due Dates, 25

E.
   Early Childhood and Upper Elementary Education, 109
   Early Registration, 32
   Economics, 58
   Education courses, 111
   Education, 108
   Elementary Education, 109
   Emergency Loan Fund, 16
   Emeritus Faculty, 134
   Engineering (two-year only), 23, 42
   English, 60
   Enrollment:
      guest matriculant, 17; off-campus, 17; senior citizen, 17
   European Studies, 43
   Evening Session, 10
   Examinations, 33
   Extended Studies, 10-11
      Bachelor of Individualized Study, 10; enrollment, 10-11, 29; Evening Session, 10; guest matriculant, 11; non-credit courses, 11; off-campus credit courses, 11; public service, 11; senior citizen enrollment, 11

Catalogs:
Summer Session, 10; Graduate School, 9; Other institutions, 12
Certification:
   Secondary School Teaching, 39, 109
Change of Courses, 33
Change of Major, 35
Change of Status & Address, 33
Checks, 25
Chemistry, 55
Classification of Students, 28
College Level Examination Program (CLEP), 15, 30
College of Arts & Sciences:
   Bachelor of Arts, 38; Bachelor of Science, 38; Bachelor of Music, 39
College of Professional Studies, 40, 107
College Work-Study Program, 16
Commencement, 36
Comprehensive Examinations, 34
Conditional Admission, 24
Conduct, 14
Consortium, 11
Contents, 3
Cooperative Education, 17
Counseling Center, 15
Credits and Grades, 27
Credits Earned Elsewhere, 26, 30
Credit Without Grade, 27
Library Science, 109
Library Science Courses, 112
Library Services, 8
Loans & Grants, 16

M.
Major, 38:
change of, 35; more than one, 35; selection of, 35
Map, inside back cover
Mathematics, 86 — See also 116
Medical Report, 4
Medical Technology, 113
Mission and Goals, 6
Minority Affairs, 12
Motor Vehicles, 18:
registration fee, 26
Music, 68

N.
National Direct Student Loan Program, 16
Non-Credit Offerings, 11
Non-University Publications, 18
Nursing, 120

O.
Off-Campus Credit Courses, 11
Off-Campus Housing, 14

P.
Pets, 18
Philosophy & Religion, 88
Physical Education courses, 118
Physics, 92
Placement, Proficiency, and Transfer, 28
Portuguese courses, 79
Post Baccalaureate Status, 109
Probation, 34
Proficiency examinations, 29
Project Ahead, 24
Psychology, 94
Public Administration, 102
Public Affairs, 98
Public Service & Non-Credit Offerings, 11

R.
Readmission:
after suspension, 34; after voluntary withdrawal, 37
Reactor & Visitors, 132
Refunds, 25
Regional Cultures, 115
Registration:
academic loan, 32; calendar, 4; cancelling, 33; change of status and address, 33; continuous, 35; delayed, 33; early, 32; for courses, 32; role of faculty adviser in, 32; Schedule of Classes, 32; student identity card, 33
Religion and Philosophy, 88
Repeating a course, 32
Requirements for graduation, 35
Reserving University Facilities, 18
Residence Requirements, 35
Russian courses, 80

S.
Satisfactory standing, 34
Schedule of Classes, 32
Scholarships, 134
School of Business Administration, 123
Secondary School Education, 110
Second Bachelor’s Degree, 35
Selection of a Major, 35
Semester Excluded from GPA, 28
Semester hour:
defined, 27; classification by, 28
Senior Citizens Enrollment, 11
Services, 13
Social Science, 116
Social Welfare, 105
Sociology, 102
Solicitors & Salesmen, 18
Spanish, 80
Speech courses, 74, 116
State Loans & Grants, 16
Student Identity Card (ID), 33
Student Organizations, 14
Student Services & Activities, 13-21
Student Teaching, 108
Student Union, 13
Study Abroad, 30
Summer Session, 10
Supplemental Educational Opportunity Grant Program, 16
Suspension, 34

T.
Teacher Certification, 108
Teacher Education Program, 108
Telephone Directory, 148
Testing, 15
Theatre Project, 8
TOEFL, 24
Transfer Credit:
Earned at other colleges, 30; to be earned at other colleges, 30; Study abroad, 30
Transfer Students, 24
Transcript Fee, 26
Two-year Engineering courses, 42
Tuition and Fees, 25-26:
Checks for, 25; deferred payment plan for, 25; due dates, 25; failure to pay, 25; off-campus, 25; payment of, 25; refund of, 25; schedule of, 26

U.
Undergraduate Degree Programs, 2

V.
Veterans Affairs, 16-17
Veterans Education Benefits, 17
Virginia Certification with Bachelor of Music, 70
Virginia Grants, Loans and Scholarships, 16
Voluntary Withdrawal, 35

W.
Work-Study Program, 16
# Telephone Directory

<table>
<thead>
<tr>
<th>Department/Office</th>
<th>Location</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admissions</td>
<td>Robinson Hall</td>
<td>2102</td>
</tr>
<tr>
<td>Graduation</td>
<td>Finley Bldg.</td>
<td>2104</td>
</tr>
<tr>
<td>Affirmative Action</td>
<td>Finley Bldg.</td>
<td>2107</td>
</tr>
<tr>
<td>Athletic Director</td>
<td>Carl Cannon</td>
<td>2519</td>
</tr>
<tr>
<td>Biology Department</td>
<td>Robinson Hall</td>
<td>2181</td>
</tr>
<tr>
<td>Bookstore - Main Campus</td>
<td>Student Union</td>
<td>2169</td>
</tr>
<tr>
<td>Campus Ministry</td>
<td>Student Union</td>
<td>2160</td>
</tr>
<tr>
<td>Career Planning and Placement</td>
<td>Karen M. Blocher</td>
<td>2476</td>
</tr>
<tr>
<td>Cashier</td>
<td>Finley Bldg.</td>
<td>2119</td>
</tr>
<tr>
<td>Chemistry Department</td>
<td>C. Robert Walter, Jr.</td>
<td>2191</td>
</tr>
<tr>
<td>Comptroller</td>
<td>Benjam in H. Dozier</td>
<td>2569</td>
</tr>
<tr>
<td>Consortium</td>
<td>Tallwood (Rbts.Rd)</td>
<td>2155</td>
</tr>
<tr>
<td>Cooperative Education</td>
<td>Student Union</td>
<td>2165</td>
</tr>
<tr>
<td>Counseling Center</td>
<td>Ralph K. Roberts</td>
<td>2200</td>
</tr>
<tr>
<td>Dean of the College of Arts and Sciences</td>
<td>Leon E. Boothe</td>
<td>2400</td>
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<tr>
<td>Dean of the College of Professional Studies</td>
<td>Clayton M. Schindler</td>
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<td>Dean of the School of Business Administration</td>
<td>Lloyd M. DeBoer</td>
<td>2123</td>
</tr>
<tr>
<td>Dean of the Graduate School</td>
<td>Robinson Hall</td>
<td>2300</td>
</tr>
<tr>
<td>Dean of the Summer Session</td>
<td>William P. Snively</td>
<td>2344</td>
</tr>
<tr>
<td>Economics Department</td>
<td>Robinson Hall</td>
<td>2421</td>
</tr>
<tr>
<td>Education Department</td>
<td>Larry Bowen</td>
<td>2220</td>
</tr>
<tr>
<td>English Department</td>
<td>Michael G. Sundell</td>
<td>2436</td>
</tr>
<tr>
<td>Extended Studies</td>
<td>Robert T. Hawkes, Jr.</td>
<td>2351</td>
</tr>
<tr>
<td>Field Instruction (Social Welfare)</td>
<td>Miriam Raskin</td>
<td>2176</td>
</tr>
<tr>
<td>Financial Aid</td>
<td>Dianne B. Smith</td>
<td>2450</td>
</tr>
<tr>
<td>Fine and Performing Arts Department</td>
<td>Sam di Bonaventura</td>
<td>2450</td>
</tr>
<tr>
<td>Food Service</td>
<td>Chuck Kellogg, Ogden</td>
<td>(703) 323-1120</td>
</tr>
<tr>
<td>Foreign Languages Department</td>
<td>Leo Hech</td>
<td>2231</td>
</tr>
<tr>
<td>General Studies Department</td>
<td>John M. Smith</td>
<td>2406</td>
</tr>
<tr>
<td>Health and Physical Education Department</td>
<td>John H. Cooper</td>
<td>2322</td>
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<tr>
<td>History Department</td>
<td>Joseph L. Harsh</td>
<td>2242</td>
</tr>
<tr>
<td>Library</td>
<td>John Veenstra</td>
<td>2390</td>
</tr>
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<td>North Campus Library</td>
<td></td>
<td>2403</td>
</tr>
<tr>
<td>Mathematics Department</td>
<td></td>
<td>2262</td>
</tr>
<tr>
<td>Minority Affairs</td>
<td></td>
<td>2383</td>
</tr>
<tr>
<td>Nursing Department</td>
<td></td>
<td>2446</td>
</tr>
<tr>
<td>Observatory</td>
<td></td>
<td>2490</td>
</tr>
<tr>
<td>Philosophy and Religion Department</td>
<td></td>
<td>2252</td>
</tr>
<tr>
<td>Physics Department</td>
<td></td>
<td>2302</td>
</tr>
<tr>
<td>President (Acting)</td>
<td></td>
<td>2120</td>
</tr>
<tr>
<td>Psychology Department</td>
<td></td>
<td>2203</td>
</tr>
<tr>
<td>Public Affairs Department</td>
<td></td>
<td>2272</td>
</tr>
<tr>
<td>Registrar</td>
<td></td>
<td>2141</td>
</tr>
<tr>
<td>Security - Main Campus</td>
<td></td>
<td>2158</td>
</tr>
<tr>
<td>Social Welfare Program</td>
<td></td>
<td>2444</td>
</tr>
<tr>
<td>Sociology Department</td>
<td></td>
<td>2576</td>
</tr>
<tr>
<td>Student Affairs, Vice President</td>
<td></td>
<td>2330</td>
</tr>
<tr>
<td>Student Government</td>
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<td>2134</td>
</tr>
<tr>
<td>Student Housing</td>
<td></td>
<td>2196</td>
</tr>
<tr>
<td>Student Newspaper</td>
<td></td>
<td>2168</td>
</tr>
<tr>
<td>Student Teaching and Field Experiences (Education)</td>
<td></td>
<td>2434</td>
</tr>
<tr>
<td>Student Union Information Desk</td>
<td></td>
<td>2374</td>
</tr>
<tr>
<td>Tutorial Services</td>
<td></td>
<td>2367</td>
</tr>
<tr>
<td>Veterans Affairs</td>
<td></td>
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