GEORGE MASON UNIVERSITY BULLETIN

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"... I charge them on a father's blessing never to let the motives of private interest or ambition induce them to betray, nor the terrors of poverty and disgrace, or the fear of danger or of death, deter them from asserting the liberty of their country and endeavoring to transmit to their posterity those sacred rights to which themselves were born."

Admonition to his sons by George Mason in his will, 1792

"... I am closing the last scenes of life by fashioning and fostering an establishment for the instruction of those who are to come after us. I hope its influence on their virtue, freedom, fame, and happiness, will be salutary and permanent."

Thomas Jefferson
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General Information

Calendar
Correspondence Directory
History of George Mason University
UNDERGRADUATE ACADEMIC CALENDAR 1973-74

First Semester

Monday, July 2.................. Last day for students not in continuous registration, summer session excluded, to notify Admissions Office for readmission next semester
Wednesday, August 22......... Tuition and fees due for pre-billed students
Monday, August 27 through...... Pre-registered students pick up assigned schedules; advising and registration for returning students who did not pre-register
Thursday, August 30-10:00 A.M.-6:00 PM.--- Pre-registered students pick up assigned schedules; advising and registration for returning students who did not pre-register

Monday, August 27-8:00 A.M. .......... Orientation for faculty
Monday, August 27-8:00 A.M. .......... Orientation, advising and registration for transfer students (names A-G)
Monday, August 27-10:00 A.M. ........ Foreign Language placement examinations

Tuesday, August 28-8:00 A.M. .......... Orientation, advising and registration for transfer students (names H-N)
Tuesday, August 28-10:00 A.M. ........ English proficiency test
Wednesday, August 29-8:00 A.M. .......... Orientation, advising and registration for transfer students (names O-Z)
Thursday, August 30-8:00 A.M. .......... Orientation, advising and registration for new Freshmen

Friday, August 31 through
Monday, September 3 .................... Labor Day recess
Tuesday, September 4 .................... First day of classes
Monday, September 10 .............. Last day for adding new courses
Wednesday, October 10 .......... Last day for filing Winter and Spring degree applications in Registrar's Office
Monday, October 15 .............. Last day for dropping a course without incurring a grade of F

Monday, October 22 ........ Mid-term progress reports due from faculty
Monday, October 29 ........ Distribution of mid-term progress reports
Friday, November 9 .................. Patriots' Day
Wednesday, November 14 ......... Spring semester schedule of classes and pre-registration calendar published
Friday, November 16 .............. Last day for returning students not enrolled first semester to notify Admissions Office for readmission second semester

Saturday, November 17 through
Sunday, November 25 .............. Thanksgiving recess
Monday, November 26 through...... Advising and pre-registration
ACADEMIC CALENDAR

Wednesday, December 5 for Spring semester (in order of class standing: see pre-registration calendar)
Friday, December 14 .................................. Last day of classes
Saturday, December 15 and Sunday, December 16 .... Reading days
Monday, December 17 through Friday, December 21 . . Examinations
Saturday, December 22 through Monday, January 9 . . Second Semester
Sunday, January 13 .................................... Christmas recess

Second Semester

Wednesday, January 9 .............................. Tuition and fees due for pre-billed students
Thursday, January 10–9:00 A.M. .......... Foreign language placement examinations
Monday, January 14 and . . . Pre-registered students pick up assigned
Tuesday, January 15— schedules; advising and registration
10:00 A.M.–6:00 P.M. for returning students who did not pre-register
Monday, January 14–8:00 A.M. ......... Orientation, advising and registration for new students (Names L-Z)
Monday, January 14–10:00 A.M. .......... English proficiency test
Tuesday, January 15–8:00 A.M. ......... Orientation, advising and registration for new students (Names A-K)
Wednesday, January 16 ......................... First day of classes
Friday, January 18 ............................... Winter commencement
Tuesday, January 22 ............................. Last day for adding new courses
Tuesday, February 26 ........................... Last day for dropping a course without incurring a grade of F
Friday, March 1 ................................. Recommended filing date for financial aid applications for Summer 1974
Wednesday, March 6 ............................ Last day for filing Summer degree applications in Registrar’s Office
Saturday, March 16 through Sunday, March 24 ... Spring recess
Monday, April 1 ............................... Recommended filing date for financial aid applications for 1974-75 session
Monday, April 1 ............................... Fall semester schedule of classes and pre-registration calendar published
Thursday, April 4 through .............. Advising and pre-registration for
Thursday, April 11 Fall semester (in order of class standing: see pre-registration calendar)

Friday, April 12 through Monday, April 15 .......... Easter recess
Friday, April 19 .................................... George Mason Day
Wednesday, May 8 ............................. Last day of classes
Thursday, May 9 through Sunday, May 12 . . Reading days
Monday, May 13 through Tuesday, May 21 . . Examinations
Saturday, May 25 ................................... Spring Commencement
ACADEMIC CALENDAR

Summer Session 1974

- Wednesday, May 29 and Thursday, May 30 .............. Registration for Summer School
- Monday, June 3 .................................................. First term begins
- Wednesday, July 3 .................................................. First term ends
- Tuesday, July 9 ..................................................... Second term begins
- Wednesday, August 7 ............................................ Second term ends
- Saturday, August 10 .............................................. Summer Commencement

*These dates are tentative; details and final dates for the Summer Session are published in a separate bulletin.
Inquiries to the University should be addressed as indicated below:

- Academic Programs (Undergraduate). Dean of Arts and Sciences
- Academic Programs (Graduate). Dean of Graduate Program
- Admissions. Director of Admissions
- Athletics. Director of Athletics
- Catalog. Director of Admissions
- Financial Matters. Comptroller
- Gifts and Bequests. President
- Placement Services. Dean of Students
- Public Relations and Development Program. President
- Scholarships. Dean of Students
- Student Affairs. Dean of Students
- Summer Session. Dean of Summer Session
- Transcripts. Registrar

GEORGE MASON UNIVERSITY, FAIRFAX, VIRGINIA 22030

Visitors are always welcome at the University, and prospective students are especially encouraged to visit the campus, preferably while the University is in session. Administrative offices are open Monday through Friday, but hours vary, and it will be best to make appointments in advance with Admissions or any other appropriate offices.
LORIN A. THOMPSON
President, 1966-June, 1973
VERGIL H. DYKSTRA
President, July 1, 1973-
History of George Mason 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 University's Board of Visitors 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 seventeen 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 of the University. The first four buildings opened September, 1964.

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

In an attempt to meet the State's long-range mandate, the College Board of Control, supported by the citizens of Alexandria, Falls Church, Arlington and Fairfax County, worked to acquire 422 additional acres. Thus by July, 1970, the size of the campus had reached 572 acres. In January, 1972, the George Mason University Foundation, Inc., acquired the former Fairfax High School property on Route 50 in Fairfax City and this facility is now known as the North Campus of the University.

The Master Plan for George Mason, approved in 1968, provides for an enrollment of 15,000 by 1985. The University will be divided into six semi-autonomous colleges each with about 2,500 students. Each college will have a particular academic emphasis and will contain classrooms, dormitories and a student center. Certain facilities, such as the library, research laboratories, administrative and athletic centers will be shared by all colleges.

In February, 1972, The Rector and Visitors of the University of Virginia recommended to the Governor of the Commonwealth of Virginia that George Mason College of the University of Virginia be separated from its parent institution. 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.

George Mason University is a member of the Consortium for Continuing Higher Education in Northern Virginia.

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

Location
Facilities
Student Life
Student Services
Regulations
George Mason University serves commuting students from all parts of Northern Virginia and is easily accessible for Washington and suburban Maryland students as well. The City of Fairfax provides George Mason with the college-town atmosphere traditional to Virginia's institutions of higher learning; yet the campus is just 16 miles from downtown Washington.
THE CAMPUS. George Mason University's 572-acre campus retains much of the peaceful beauty of the Virginia countryside. Nine buildings now dot the campus, located just south of the Fairfax City limits. The University's first four buildings, opened in 1964, are linked by covered walkways and are grouped around a landscaped quadrangle.

In the last nine years several more new buildings have been added as the institution continues to expand and develop into a regional university in the Northern Virginia area. Those buildings include the first phase of the Charles Rogers Fenwick Library, a Lecture Hall, Thompson Hall, and a Physical Education Building. A Student Union is presently under construction.

The development of the University from 1964 to the present essentially represents the completion of College I (the College of Arts and Sciences).

Construction is already under way for the first building of College II, a large addition to the library, and the expansion of the Student Union. These buildings should be ready for use by early 1975.

In the development of George Mason's campus, careful attention has been paid to the preservation of as much of the natural beauty of the area as possible—particularly the many wooded areas of the campus. Parking areas are located on the perimeters of the campus, and traffic on campus will be held to a minimum. Buildings will be grouped mainly in the center of campus and will be connected by walks and surrounded by groves of trees and park-like recreational areas.

In late January, 1972, the George Mason University Foundation Inc., signed an agreement with the City of Fairfax to purchase the Fairfax High School building and some 16 acres of school property. The University is presently leasing the building from the Foundation, and the high school property has become known as the University's North Campus. North Campus is presently serving as the temporary home of College II, the College of Professional Studies.

Construction of a student union building began in the summer of 1972. The building is scheduled to be ready for occupancy in October or November, 1973.

Ground was broken in February, 1973, for more than $6.0 million worth of building construction—a classroom-laboratory complex; an addition to Charles Rogers Fenwick Library; an initial phase of a central heating and cooling plant; and a biological greenhouse.

The new classroom building, when completed, will become the permanent home of the College of Professional Studies. The library addition is the first of six such additions tentatively scheduled to be
FACILITIES

built at two-year intervals. The first phase of the central heating and cooling plant will serve all future buildings and will be added to as additional facilities are needed. The greenhouse will serve the biological sciences. Completion dates for the projects are September, 1974, for the classroom building; May, 1974, for the library addition; January, 1974, for the heating and cooling plant; and December, 1973, for the greenhouse.

Planning is currently under way for the construction of the second phase of the student union building, the second phase of the new classroom building, and the second addition to the library.

Residence halls are included in the University’s Master Plan. The University began a study in the spring of 1973 to determine the feasibility of on-campus housing and to explore alternatives to residence halls. At present, the University provides no on-campus housing for students or faculty.

LIBRARY. Library services are provided by Fenwick Library, at the southeastern corner of the main campus, and by North Campus Library, a departmental library housing business and education materials in the North Campus building. The Charles Rogers Fenwick Library, completed in 1967, is the first increment of a larger complex planned to provide library services for a rapidly expanding institution. Equipped to seat 300 people and house 70,000 volumes, the building is classically simple outside, open and modern inside, with an open stack arrangement to encourage direct access to the collection.

Students may be found during any of the ninety hours a week the library is open assuming squatter’s rights at a study carrel, lounging on the floor, listening to a record, browsing in a current magazine or reading a “book” on microfiche. The collection is designed mainly to support the curricula of the University, and includes over 80,000 volumes, 100,000 microform units, 5000 pamphlets and maps. Approximately 1500 current periodicals are received. The library is also a selective depository for United States Government publications.

Services available to students and faculty at both libraries include reference help, both for specific questions or for guidance in research projects, and interlibrary loan for needed items the library does not own. Specialized bibliographic tours of the library for classes or for new students are conducted on request. There is a reserve collection for required class reading, reader-printers for microfilm and microfiche and self-service copy machines are available.
STUDENT LIFE

ACTIVITIES. Students at George Mason University participate in the activities of the Student Government and elections for these offices are held in the spring. Students also administer the Honor System of the University, and elections for positions on the Honor Committee are held once a year.

A student in freshman or sophomore status (less than fifty-four semester-hours of credit) is ineligible to hold an elected or appointed office in any student organization or activity of either a governmental, athletic or managerial character, if his cumulative grade point average is less than 2.000. Any student on probation is ineligible to hold an elected or appointed office, 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.

There are student organizations which cater to many student interests: political, forensic, musical or dramatic, scientific, recreational, social and religious. For a complete listing of recognized student organizations, inquire at the Student Government Office.

Participation in student activities is limited to bona fide registered students.

ATHLETICS. The intercollegiate athletic program offers competition between the University and various colleges in Virginia, Maryland and other states on the East Coast. Intercollegiate competition is conducted in cross-country, soccer, basketball, wrestling, fencing, baseball, golf and tennis. The University is a member of two national athletic organizations—National Collegiate Athletic Association and National Association of Intercollegiate Athletics. Under their auspices freshmen are eligible for varsity competition. The University participates in the Mason-Dixon Intercollegiate Athletic Conference and the Potomac Intercollegiate Conference. Competition outside of conference play is furnished by American University, University of Virginia, University of Richmond, George-town University, George Washington University, University of Delaware and others. The Athletic Council has general supervision over the intercollegiate athletic program.

The intramural program enables each student to participate voluntarily in sports of his own choosing. Facilities are available for tennis, badminton, basketball, volleyball, flag-football, trap and skeet,
cross-country, table tennis and softball. The Intramural Council, composed solely of students, conducts the intramural program. The University as a member of the NCAA and NAIA abides by all the rules of these organizations.

STUDENT SERVICES

LIVING ACCOMMODATIONS. The Placement Office provides assistance in locating suitable housing in the vicinity of the University for students living away from home. The University provides no housing facilities of its own at present.

INSURANCE. George Mason University has no provisions for rendering health services to students. It is the individual student's responsibility to arrange for needed health services. A combined hospitalization and accident policy is available to students at George Mason University. This policy provides twenty-four hour coverage including vacation periods. Applications and brochures are available in the Office of the Dean of Students.

PLACEMENT SERVICE. The Placement Office assists students in finding full-time employment upon leaving the University, and assists alumni on a continuing basis. The career placement program emphasizes personal counseling, the use of occupational information, and participation in recruitment programs and career days. In addition this office helps students to find part-time and summer work.

A student may also establish a permanent credentials file which can be made available to prospective employers.

Information concerning part-time temporary and summer jobs is available to students through listings posted on a bulletin board, and through consultation with an employment counselor.

THE UNIVERSITY COUNSELING AND PSYCHOLOGICAL SERVICES CENTER. The Center provides specialized psychological services in educational-vocational testing and counseling, and in personal adjustment counseling. These services aid the student in exploring his interests, personality, and achievement level and assist him in making the most of his opportunities for academic and personal development while in college. The Center is staffed by professionally trained psychologists and counselors. There is no charge for Center services.

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 ex-
aminations. 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, 1962. It is recognized and approved as an integral part of the University. The essence of the Code is that a student's word, as a member of the University, 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 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. The Honor Committee is to be a group of students elected from the student body whose primary and indispensable duty shall be to instill the concepts and spirit of the Honor Code within the student body. The secondary function of this group shall be to sit as a hearing committee on all alleged violations of the code.

Entering students will participate in an orientation given by the Honor Committee. A statement of willingness to comply with the Honor System is included in the application form for admission to George Mason University.

CAMPUS MINISTRY ASSOCIATION. The Campus Ministry Association is an ecumenical group of clergy and concerned laymen of Judaeo-Christian orientation whose objective is to provide opportunities for service as well as religious, educational and social activities for the University community. It is sponsored presently by the Christian (Disciples), Christian Science, Episcopal, Lutheran, Presbyterian, Roman Catholic and United Methodist Churches. Others are cordially invited to participate. The Association draws on the resources of United Ministries to Higher Education and the Council of Churches of Greater Washington.

Chaplains are on campus daily for discussion and counseling with all members of the University community. A counseling and seminar room is available in the East building.
freedom of expression, and freedom of the individual are sustained. It is committed to preserving the exercise of any right guaranteed to individuals by the Constitution. However, the exercise and preservation of these freedoms and rights require a respect for the rights of all in the community to enjoy them to the same extent. Actions which deprive others of the opportunity to be heard, involve takeovers of buildings that materially and substantially disrupt the educational process, incarceration of or assaults on persons, destruction of property and rifling of files, are incompatible with the nature and function of educational institutions. 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. Further amplification of the Standards of Conduct will be found in the Student Handbook.

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 Office. 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 by students 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.

NON-ACADEMIC EVENTS AND PUBLICATIONS. Organizations or groups of students wishing to use University facilities for non-academic matters must obtain approval of the Dean of Students. Each request must indicate the name of the organization, the type of event for which the facility is intended and be registered in advance with the Office of the Dean of Students.

George Mason University students may publish and/or disseminate publications on campus which are not funded by the Publication Board, if such are not in violation with 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.

CHANGE OF STATUS AND ADDRESS. Each student is required to notify the Registrar’s Office 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 Registrar’s Office reserves the right to require a certified copy of documents authorizing such change. Such documents will be kept in the student’s permanent file.

ENFORCED WITHDRAWAL. The University may impose enforced withdrawal as a penalty for habitual delinquency in class, habitual idleness, or any other fault which prevents the student from fulfilling the purposes of enrollment in the University.
Entering George Mason University

Nature of Announcements
Admission Requirements
Registration
Fees
Financial Assistance
Veterans' Affairs
NATURE OF ANNOUNCEMENTS

The information contained herein and any other information conveyed to students or to prospective students is subject to change at anytime by the appropriate University authority.

UNDERGRADUATE ADMISSION REQUIREMENTS

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 June 1. 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 Admissions Office. Admission is contingent upon satisfactory completion of the requirements discussed in this section and successful completion of the senior year of high school.

All freshman candidates for admission are required to take the Scholastic Aptitude Test given by the College Entrance Examination Board, or its equivalent. 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 various test centers distributed throughout the United States and overseas. 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.*

The English Department strongly suggests that students in the arts, sciences, and elementary education programs take the language achievement tests of the College Entrance Examination Board. Scores of these tests may be used for advanced placement of students by the English Department.

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

—

*Address of the College Board Offices: Box 592, Princeton, New Jersey, 08540, or Box 1025, Berkeley, California, 94701.
ADMISSION REQUIREMENTS

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. Evidence of good character and acceptable social habits.
3. Complete secondary school record, examination results, and recommendations from schools.

The following general requirements are set forth for the guidance of students interested in admission: The applicant must be at least 16 years of age and a graduate of an accredited high school or preparatory school with graduation based on no fewer than fifteen units (see specific subject requirements below). Applicants should rank in the upper half of their senior class. A personal interview is not required unless requested by the Director of Admissions.

In summary, a complete application includes (1) a properly executed application form, (2) a non-refundable application fee of $10.00 accompanying the application, (3) a transcript of grades from secondary school and all colleges attended, and (4) a record of the scores on the Scholastic Aptitude Test for the College Entrance Examination Board.

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 applicant fails to satisfy all requirements prior to closing of spring or fall registration.

DISCRIMINATION PROHIBITED. George Mason University complies with Title VI of the Civil Rights Act of 1964 and does not discriminate on the basis of race, color, sex, religion, or national origin.

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

ADMISSION FROM SECONDARY SCHOOL

Arts, Sciences and Elementary Education

For admission to the arts, sciences, and elementary education programs, an applicant must take the Scholastic Aptitude Test given by the College Entrance Examination Board and must present not less
ADMISSION REQUIREMENTS

than fifteen (15) units of high school work in the following academic fields:

<table>
<thead>
<tr>
<th>Subject</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>4</td>
</tr>
<tr>
<td>Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>2</td>
</tr>
<tr>
<td>Social Studies</td>
<td>1</td>
</tr>
<tr>
<td>Laboratory Science—Biology, Chemistry, or Physics</td>
<td>1</td>
</tr>
<tr>
<td>Electives</td>
<td>4</td>
</tr>
<tr>
<td>Minimum Total</td>
<td>15</td>
</tr>
</tbody>
</table>

Two-Year Engineering

For admission as a student in the two-year engineering program, an applicant must present sixteen (16) units from high school in the following fields:

<table>
<thead>
<tr>
<th>Subject</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>4</td>
</tr>
<tr>
<td>Mathematics</td>
<td>3½</td>
</tr>
<tr>
<td>History</td>
<td>1</td>
</tr>
<tr>
<td>Science</td>
<td>2</td>
</tr>
<tr>
<td>Electives</td>
<td>5½</td>
</tr>
</tbody>
</table>

The experience of the University has shown that certain subjects are more useful to the engineering student and their inclusion in the high school programs of applicants is strongly recommended. These subjects include: additional mathematics, American and modern European history, English and American literature, physics, chemistry, biology, geography, foreign languages, and mechanical drawing.

ADMISSION FROM ANOTHER COLLEGE

George Mason University accepts qualified students by transfer from other colleges. An applicant for admission who has attended

1. These units must be selected from Algebra I, Algebra II, geometry, trigonometry, probability, and elementary calculus.
2. No credit is allowed for less than two units in a foreign language.
3. These units must be two of algebra, one of plane geometry and ½ unit of advanced mathematics—trigonometry, solid geometry, or advanced algebra.
4. Chemistry and physics are recommended.
5. Not more than four units of vocational subjects relevant to engineering will be accepted.

http://catalog.gmu.edu
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 also be required. Normally, transfer students will be expected to meet the University's requirements governing initial admission from high school. An applicant may be considered for transfer only if he is entitled to an honorable dismissal without social or academic probation and only if he has an average of at least "C" in the institution from which he wishes to transfer. A student who has been suspended or dropped from another institution for scholastic deficiency or other reasons can not be considered for admission. Transfer students should note the requirements shown on page 43 under the heading Credits Earned at Other Colleges.

Transfer students may be required to present Scholastic Aptitude Test scores of the College Entrance Examination Board before approval for admission.

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.
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 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. The program must be accomplished in the regular sessions, not to include the Summer Sessions. Failure to attain the necessary average will result in academic dismissal.

REGISTRATION

Applicants seeking membership in the University, having been accepted for admission by proper admitting authority, should present themselves to the Dean of his College or his authorized repre-
sentative on the date specified in the Announcements of the University. Applicants must also attend and participate in the orientation program announced in the calendar. Each new and returning student is given written instructions for the registration procedure. He is responsible for following and completing the process properly. The student who fails to do this will not be a Registered Student.

Each registering student must complete and sign in full the Information Card. Information requested on this card is used to set up the student's master record and for numerous statistical reports. George Mason University does not discriminate with regard to race, color, sex, religion, or national origin; the information requested is for reports the University provides to federal authorities and to other agencies collecting data on 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 this card is not a Registered Student.

PREREGRISTRATION. Preregistration is conducted near the end of each semester for those students currently enrolled and who intend to return for the next semester. Students who preregister for a regular semester of the academic year must pick up their course schedules at the time prescribed in the academic calendar. Preregistered students failing to pick up their course schedules within the prescribed period will have their preregistration cancelled.

DELAYED REGISTRATION. Any student who fails to present himself at the time specified for registration will not be permitted to matriculate unless he can explain his delay to the satisfaction of the Dean of his College or his representative. If admitted after explanation, the student will be charged a delayed-registration fee of $5.00-$15.00, a part of which may be waived by the Dean of his College for proper cause.

STUDENT IDENTITY CARD. As an integral part of the registration process, each student is issued without charge an identity card. This 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 at registration each semester.
CLASSIFICATION AS A VIRGINIA STUDENT. To be classified as a Virginia Resident it is mandatory that the APPLICANT, or HUSBAND, or FATHER, which ever applies, shall have been domiciled in the State of Virginia for ONE FULL YEAR immediately PRECEDEING the beginning of the semester, and shall have FILED VIRGINIA STATE INCOME TAX for this same period. Dependents living with their families, or being supported by same, have the domicile of the Father or other legal guardianship created ONLY by adoption, or divorce. Any student in doubt about his status as a Virginia resident should contact the Admissions Office.

FEES

<table>
<thead>
<tr>
<th></th>
<th>In-State Students</th>
<th>Out-of-State Students</th>
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<tbody>
<tr>
<td>Application Fee</td>
<td>$ 10.00</td>
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<tr>
<td>Tuition, Full-time</td>
<td>290.00</td>
<td>650.00</td>
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<td>(12 or more semester-</td>
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<td>hours) per semester</td>
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<tr>
<td>Tuition, part-time</td>
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<td>(11 semester-hours or</td>
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<td>less) per semester,</td>
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<tr>
<td>Comprehensive Fee,</td>
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<td>30.00(a)</td>
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<td>(7 hours or more)</td>
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<td>per semester</td>
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<tr>
<td>Building Fee, per</td>
<td>25.00(a)</td>
<td>25.00(a)</td>
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<td>semester</td>
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<tr>
<td>Laboratory Breakage</td>
<td>5.00(b)</td>
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<td>Deposit</td>
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<tr>
<td>Diploma Fee (Seniors</td>
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<td>Only)</td>
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<tr>
<td>Special Registration</td>
<td>15.00(c)</td>
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<td>Fee</td>
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<td></td>
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<tr>
<td>Private Music</td>
<td>(d)</td>
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<tr>
<td>Instruction</td>
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</table>

(a) Students enrolled for six semester-hours or less are required to pay one-
| half of the Comprehensive and Building Fees. |
(b) Chemistry only. Same Laboratory card may be used for both semesters.
(c) See Application, p. 49.
(d) $75.00 for one half-hour lesson per week per semester. Fee is non-
| refundable after 30 calendar days. Refund prior to completion of 30 days is |
| $50.00. |

PAYMENT OF TUITION AND FEES. Tuition and fees are due and payable at the Business Office on or before August 22, 1973 and January 9, 1974. No student is permitted to register for classes until satisfactory financial arrangements have been made with the Business Office (Cashier).

All students are urged to make payments (whether by mail or in person) by personal check, money order or bank draft.
DEFERRED PAYMENT PLAN. There is a deferred payment plan available for students whose tuition for the semester exceeds $150.00. The student must pay all fees and at least one-third of the tuition as the initial payment, with the remaining tuition payable in two equal installments. Bills for installment payments will not be prepared. It is the student’s responsibility to ensure payment of his installments on or before the due dates published.

Failure to make any tuition payment on or before 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 due date will be placed on financial probation for a period of ten calendar days. If satisfactory arrangements have not been completed by the end of the probationary period, the student will be suspended for the remainder of the semester.

DUE DATES.


Second Semester: Second and third payments due February 8 and March 8, 1974.

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 check within five calendar days following notification by the Business Office will be suspended.

A student whose check is returned by the bank marked “Insufficient Funds” will be subject to the prescribed late penalty of $5.00 per day if he fails to make the check good on or before the deadline for the payment in question.

WITHHOLDING ACADEMIC CREDIT. Transcripts of record will be withheld from students and former students who have failed to meet their official financial obligations. This includes traffic and library fines.

REFUNDS. A student withdrawing within five class days following registration shall have tuition and comprehensive fee refunded in full; however, $10.00 will be withheld to cover the administrative cost of registration.
FINANCIAL ASSISTANCE

Tuition only will be refunded on a graduated scale for subsequent voluntary withdrawals.

OTHER REQUIRED FEES

DEPOSITS. Each student enrolled in a laboratory course (in Chemistry) is required to purchase from the Cashier at the time of registration one Laboratory Card priced at $5.00. This is intended to cover breakage or loss of 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, 1974).

TRANSCRIPT FEE. A fee of $1.00 is charged for each transcript of record when requested by the student. 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 Security Office and pay a fee of $1.00 for a parking decal. (See Regulations on Motor Vehicles, page 18.)

FINANCIAL ASSISTANCE

George Mason University has a limited amount of financial aid available, which is administered by the Financial Assistance Office. This assistance consists of scholarships, grants, loans, and employment. Financial Assistance awards are based primarily on financial need, and secondarily on scholarship.

To apply for aid, a student who has been accepted for admission to George Mason University should consult with a Financial Assistance Counselor and then file an application. In addition, a "Parents' Confidential Statement" or "Student's Financial Statement" in support of application for financial assistance must be filed with the College Scholarship Service. The suggested dates for submitting applications are:

- First semester ........................................May 1
- Second semester .....................................November 15
- Summer ................................................April 15

http://catalog.gmu.edu
FINANCIAL ASSISTANCE

FEDERAL PROGRAMS

George Mason University participates in several federally supported programs of student financial aid. The following 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-sponsored 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.

EDUCATIONAL OPPORTUNITY GRANT PROGRAM. There are available a limited number of direct grants to undergraduate full-time students with exceptional financial need who require such assistance to attend college and who show academic promise. To receive this grant, a matching scholarship or loan must be awarded to the student.

THE COLLEGE WORK-STUDY PROGRAM. There are available funds to provide work opportunities to full-time students from low-income families who need earnings from part-time work 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 Work-Study job placement.

U.S. LOAN PROGRAM FOR CUBAN STUDENTS. Long-term, low-interest loans are available to Cuban nationals residing here who are unable to receive support from sources within Cuba as a result of actions by the Cuban government, and who are without sufficient resources in the United States to finance their education. Repayment begins nine months after graduation and may be deferred if one enters graduate school, the Peace Corps, VISTA, or military service.

LAW ENFORCEMENT EDUCATION PROGRAM. This program provides loans and/or grants to state and local law enforcement personnel and to students who promise to enter the law enforcement field (police, corrections, etc.). Due to limited funds, students in police work or in the Law Enforcement major field of study will receive first priority. Additional information may be obtained from the Financial Assistance Office.
30 FINANCIAL ASSISTANCE

STATE LOANS AND GRANTS

The state of Virginia makes available financial assistance for Virginia residents. Most programs require students to be enrolled full-time.

VIRGINIA LOANS. 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.

STATE TEACHERS' SCHOLARSHIP LOANS. These scholarships are loans in the amount of $450.00 per year which are cancelled at a fixed rate for each year of teaching in Virginia schools after graduation. Applicants must be Virginia residents, full-time undergraduate students, and meet the qualifications set by the State Board of Education. Application forms are available in the Financial Assistance Office, and should be returned during the spring semester for the following academic year.

VIRGINIA STATE LAW ENFORCEMENT SCHOLARSHIP PROGRAM. A law enforcement officer of Virginia, enrolled in a program leading to a degree in law enforcement, may apply for a tuition refund to the Virginia Department of Education. One-half of the tuition costs, not to exceed $40.00 per course, may be received upon completion of the course, and the remaining one-half received after one year of service as a law enforcement officer.

For further information contact the Financial Assistance Office of the University or contact the Department of Education, Ninth Street Office Building, Richmond, Virginia 23219.

OTHER PROGRAMS

GEORGE MASON UNIVERSITY FOUNDATION, INC. Certain funds donated to the George Mason University Foundation, Inc., are designated for scholarships and are held in trust by the foundation. Income from these gifts is used for general scholarships. This fund is administered by the Board of Trustees of the Foundation. Application for loans should be addressed to the Office of Financial Assistance.

FULBRIGHT-HAYS AWARDS. Students seeking information regarding these awards which provide funds for pre-doctoral study
VETERANS' AFFAIRS

or research abroad should contact Dr. Angela Khoury, George Mason University Fulbright Program Advisor. Faculty members nominate promising students.

WOODROW WILSON FOUNDATION. The Woodrow Wilson Foundation provides funds for graduate fellowships to students planning college teaching careers in a liberal arts field. Seniors interested in applying for these highly competitive grants must be nominated by one of their professors in October. Consult the departmental advisor or the local Woodrow Wilson campus representative for further information.

APPLIED MUSIC SCHOLARSHIPS. A limited number of applied music scholarships are available to in-coming Freshmen at George Mason University. Application should be made to the Department of Humanities.

EMERGENCY LOAN FUND

Short-term, interest-free loans are available to students, through the Financial Assistance Office.

VETERANS' AFFAIRS

The Registrar's Office is the University's liaison with the Veterans Administration in matters concerning educational benefits to veterans and their dependents.

Veterans eligible for educational benefits under Public Law 89-358 (Peacetime G.I. bill) must make application to their nearest VA Regional Office for approval of their program and authorization for benefits. It is important that this be done in advance of taking up residence so that programs may be approved before funds are needed. Application forms for educational benefits are available from the Registrar's Office, or at the Veterans Administration Regional Office.

Persons eligible for benefits under Public Law 634 (War Orphans Program) must also make application to their nearest Veterans Administration Regional Office. The Registrar's Office assists the eligible person in his relations with the Veterans Administration upon his authorization for benefits and enrollment in the University.

Eligibility for full-time institutional training consists of twelve semester-hours, three-quarter time consists of nine to eleven semester-hours, half-time consists of six to eight semester-hours. Payments
VETERANS' AFFAIRS

to students enrolled for less than half-time are computed on the basis of tuition fees and charges. Payments for attendance at summer sessions are determined on the basis of an accelerated program.
Academic Regulations

Introduction
Credit and Grades
Reports and Examinations
Deficiencies
Withdrawal and Readmission
Standing
Declaration of a Major
Honors
INTRODUCTION

It is primarily the student’s responsibility to familiarize himself with the regulations and academic policies of George Mason University. This includes familiarity and compliance with all rules, regulations, and requirements. If doubt should arise with regard to any matter, it is the responsibility of the student to consult his faculty adviser or the Dean of his College.

While the University appreciates the need on the part of many students to assume part-time employment in order to meet their living expenses, such outside commitments must not take priority over academic responsibilities. Accordingly, it is strongly urged that a student who is employed more than 20 hours a week not attempt a full-time academic load, and that a student who is employed more than 40 hours a week 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 outside employment.

CREDIT AND GRADES

GRADES AND GRADE POINTS. University course work is measured in terms of quantity and quality. The semester-hour is the unit of credit and the number of semester-hours of credit is a measure of quantity. The grade is a measure of quality. The University recognizes four grades above passing: “A,” “B,” “C,” and “D.” “Grade “F” signifies that the work was failed. In those instances in which a student otherwise passing a course is for some cause beyond his reasonable control unable to complete the work of that course on schedule, the instructor may assign a temporary grade of “I” (Incomplete). Any “I” grade not removed from the record by the end of the following semester will be automatically changed to “F”. A student who has received an excuse by the Dean of his College to be absent from the 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 respective College for students faced with a delinquency because of very special circumstances such as a major illness.

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 4 for “A,” 3 for “B,” 2 for “C,” 1 for “D,” and 0 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), receives twelve grade points.
The grade point average is computed by dividing the number of grade points earned by the number of semester-hours attempted. Academic achievement of a student in a course is rated as follows:

- "A" = 90-100 (excellent)
- "B" = 80-89 (good)
- "C" = 70-79 (satisfactory)
- "D" = 60-69 (poor)
- "F" = Failure

CREDIT WITHOUT GRADE. Each student who is a candidate for a degree at George Mason University, having earned a minimum of fifty-four semester-hours and being in good academic standing, may elect to take not more than two one-semester courses for credit but 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. To gain admission to a course under this provision, a student must meet the stated prerequisites for entry and secure in advance of enrollment permission of the instructor. Permission Request Forms are available in the Registrar's Office. 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. Students who are majoring in the field will be given enrollment priority over students entering 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.

SEMESTER-HOUR AND COURSE LOAD. A semester-hour, the unit in which courses are measured, is defined as one hour per week of lecture recitation or not less than two hours per week of laboratory work throughout a semester. Although twelve semester-hours per semester represents a minimum full-time load, a student is expected to carry not less than fourteen nor more than seventeen-hours of work. A load in excess of seventeen hours must be approved by the Dean of the respective College or his representative. The student course load must average at least fifteen hours per semester to qualify for graduation within four years. Classes and laboratories must be scheduled over the full week. A double number separated by a hyphen (Biology 103-104) indicates that the course extends through two semesters. See Introduction, Courses of Instruction, page 52.
AUDIT. Auditing a course requires the permission of the chairman of the department in which the course is offered. This permission must be secured in advance of enrollment. A student may not change from credit to audit status after the Add period is completed. A previously audited course may not be taken for credit at a later date. However, a student may audit a course which he has previously taken and passed. The usual University fees apply to audit status.

REPEATING A COURSE. A student who has passed a course with a grade of "C" or better is not permitted to repeat that 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. His 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 his degree application.

CHANGE OF COURSES. In order to drop and/or add a course, a student must first obtain the written permission of his faculty adviser and the chairman of the department in which the dropped or added course is taken. Forms for this purpose may be obtained from the departmental secretaries. The last day for adding courses shall be no later than fourteen calendar days after and including the first day of classes.

The last day to drop a course without incurring an "F" shall be six calendar 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 his College will receive a grade of "F" in that course. All of the required signatures must be obtained on or before the deadlines shown in the Calendar.

ATTENDANCE. Students are expected to attend the class periods of the courses for which they are registered. 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 that course may warrant.

REPORTS AND EXAMINATIONS

MID-TERM PROGRESS REPORTS. Progress reports will be due from the faculty at the end of the eighth week of classes in the
first semester. These reports will be processed and distributed by
the end of the ninth week so that six weeks of the semester will re-
main during which time a student noted to be in academic difficul-
ties may act to repair his standing. The progress reports will show
for each course a symbol of “U” or “S”. The symbol “U” will be
used for reporting a standing normally associated with the letter
grades of “D” or “F”. All freshmen and all students on academic
probation will receive a mid-term progress report during the first
semester of the academic year; other students will receive mid-term
progress reports during the first semester only in a course in which
the instructor estimates the student is earning a “D” or “F.”

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.

FINAL EXAMINATIONS. Written examinations are held at the
end of each semester except in predominantly laboratory courses. In
such courses an examination may be given in the last regularly
scheduled laboratory period. No changes may be made in the an-
nounced examination schedule unless approved in writing by the
student’s academic Dean.

ABSENCE FROM FINAL EXAMINATIONS AND SPECIAL
EXAMINATIONS. Absence from final examination will not be
excused except for sickness on the day of the examination attested
by a physician’s certificate, or for other cause approved by the stu-
dent’s academic Dean. If such absence is unexcused or the examina-
tion 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 ten-day period on a date
to be arranged between him and the instructor in charge of the
examination.

RE-EXAMINATION. Re-examinations are not permitted, but
students otherwise in good standing are permitted to repeat a course
in which they have received a grade of D or F.

DEFICIENCIES

PROBATION AND SUSPENSION FOR
ACADEMIC DEFICIENCY

A student who maintains a grade point average of 2.000 for all
work attempted is in satisfactory academic standing within the Uni-
versity. A student is placed on probation when his cumulative grade
point deficiency falls below the level set by the University. He will be suspended from the University if his performance continues to be unsatisfactory or if he displays grossly inadequate performance during a single semester. To be in satisfactory academic standing, a student must have earned at least twice the number of grade points as he has attempted semester hours in the University. A deficiency of 13 grade points below the satisfactory level results in probation; a deficiency of 25 grade points, in suspension. For computation of grade points, see page 34.

The following practices guide the imposition of probation or suspension:

PROBATION

(1) Probation is used to warn the student that his performance is below the grade point average of 2.000 required for graduation. It is desirable for the student to remove his probation in one semester.

(2) A student in freshman or sophomore status (less than fifty-four semester-hours of credit) is ineligible to hold an elected or appointed office in any student organization or activity of either a governmental, athletic or managerial character, if his cumulative grade point average is less than 2.000. Any student on probation is ineligible to hold an elected or appointed office, 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.

(3) The academic record of a student who has been placed on probation is stamped "probation." If rule (2) or (3) in the section entitled Suspension is applied, the student's record will be stamped "special probation."

(4) The student who is carrying less than twelve semester-hours of work and whose total hours attempted at George Mason University including the current semester are less than twelve will have his record marked "special probation" or "probation," whichever is appropriate, if his cumulative grade point average is below 1.000.

SUSPENSION

(1) Suspension is a state of enforced withdrawal from the University and is imposed upon any student whose cumulative grade point average falls below an acceptable level. No course credits earned during the period of suspension from George Mason University will be accepted for the degree program. In addition, a student whose
record has been marked probation (or special probation as defined below) for two consecutive semesters will be suspended at the end of the third consecutive semester if the student fails to achieve satisfactory standing with the University, except as provided below. The consecutive semester probation rule does not apply to a student whose cumulative grade point average falls below the probationary standards of George Mason University.

(2) No student on probation will be suspended at the end of a semester in which he earns a grade point average for that semester of 2.000 or higher.

(3) No freshman will be placed on suspension without having been on probation for the immediately preceding semester.

(4) The record of a student to whom rule 2 or 3 of this section has been applied will be stamped “special probation” and that designation shall have the same effect as “probation.”

(5) A student who has failed to earn at least six grade points in a regular semester, no matter what his grade point total, will be suspended, except that freshmen will not be subject to this rule.

READMISSION AFTER SUSPENSION

(1) Normally, a student on suspension for the first time may establish his eligibility for probationary readmission only if he attends the Summer Session of this University and displays satisfactory progress by earning a minimum of eight semester-hours, on which he achieves an average grade of “C” while passing all work attempted. If the student chooses to carry more than eight hours, all work attempted must be passed, and the student must achieve an average grade of “C” on all work attempted. Courses taken to establish eligibility for readmission to George Mason University must be approved by the Dean of the respective College.

(2) Under special circumstances, a student on suspension for the first time may petition for readmission after the lapse of one calendar year, provided that he demonstrate that his circumstances have so changed as to make likely the successful continuation of his college program.

(3) A student who has been readmitted under either of these procedures will be placed on probationary status (as described under item 2, Probation, p. 38).

(4) 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.

(5) No course credits earned during the period of suspension from George Mason University will be accepted for the degree program.
WITHDRAWAL

ACADEMIC DISMISSAL. Failure to complete the requirements outlined in Conditional Admissions results in academic dismissal. A student on academic dismissal may not be considered for readmission until two calendar years have elapsed at which time the student may petition for readmission.

EFFECT OF ATTENDING SUMMER SESSION. The student's academic status shall not change as a result of his attending the Summer Session at George Mason University, except in those cases where students are seeking to remove the academic suspension in accord with George Mason University regulations (see Rule (1) under Readmission after Suspension). However, in cases of students requiring certification of good standing for participation in activities or for transfer to another school, the Registrar is authorized to determine the student's standing on the basis of all hours attempted at George Mason University.

VOLUNTARY WITHDRAWAL. An official application form to withdraw must be obtained from the Registrar's Office, and must be approved in writing by the Dean of the respective College. A student under eighteen years of age must have parental approval for such withdrawal. To clear the student's record, the application must then be endorsed by the Business Office, and if the student is enrolled in a laboratory course, by the chairman of the science department. When complete, the withdrawal form must be submitted to the Registrar's Office.

When a student withdraws after the last day for dropping a class, each of his instructors is asked to indicate whether the student withdrew passing or withdrew failing. The student's permanent record is marked accordingly. All courses that are marked withdrew failing will be figured into the total hours attempted. (See Grades and Grade Points, pp. 34, 35.)

Failure to comply with the above regulations will subject the student to suspension from the University.

READMISSION AFTER VOLUNTARY WITHDRAWAL. A student who withdraws with "WF" in half or more of his courses must qualify for readmission in the same way as a suspended student. A student who withdraws with "WP" in half or more of his courses and whose grade point average is more than 2.000 can be readmitted by the Director of Admissions. A student who withdraws with "WP" in half or more of his courses and whose grade point average is less than 2.000 may be required by the Dean of the respective College to attend the Summer Session and complete satisfactorily a prescribed number of approved courses. His readmission
will be considered on the basis of his previous record as well as his Summer Session courses.

GENERAL READMISSION. Students not in continuous registration, summer sessions excluded, must notify the Admissions Office 60 days in advance of registration for readmission.

STANDING

FOREIGN LANGUAGE PLACEMENT

All entering freshmen who intend to continue at George Mason University the foreign language studied in high school are required to take a foreign language placement test. These tests will be administered to students entering in 1973-74 on Monday, August 27 and Thursday, January 10, 1974. Students who intend to take the placement test must register no later than four weeks in advance with the Department of Foreign Languages.

The following guidelines apply to students enrolling in the foreign language program:

(1) The 151-152 course is reserved for students who present no high school entrance credit in the language and for students who have not taken the language within two years of the time of enrollment in the course;

(2) Students who present two or more entrance credits in a language taken within two years prior to enrollment in the college course and who wish to continue that language will be placed in 153 or 251, depending upon their scores on the foreign language placement test. If their scores place them beyond 251, they will have fulfilled the foreign language requirement by examination;

(3) Transfer students who have not received credit for college-level foreign language study will be placed according to (1) or (2) above, whichever is applicable. Transfer students who have received credit for college-level foreign language study do not take the placement test; they automatically enter the level immediately beyond the one for which they receive transfer credit, with the option of first auditing a lower-level course, if they wish.

ADVANCED PLACEMENT PROGRAM WITH CREDIT

First semester freshmen entering George Mason University who have completed advanced level courses in secondary schools and
who have passed College Board Placement Examinations with scores of 5, 4, or 3, may enroll for those higher level courses for which the department concerned determines them to be qualified. Those who have ratings of 5 or 4 will be granted up to a maximum of thirty hours credit (without grades). Those who have ratings of 3 may be granted up to thirty hours credit (without grades) upon recommendation of the department concerned and with the approval of the Dean of the respective College, but the total number of hours granted may not in any instance exceed thirty. 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.

CREDIT AND ADVANCED PLACEMENT
BY EXAMINATION

Proficiency examinations are offered to incoming freshmen degree candidates in a number of courses normally taken during the first two years. Examinations in courses in English, foreign languages, history, and mathematics will usually be announced by the appropriate departments. The foreign language placement test for incoming freshmen also serves as a proficiency examination. A satisfactory score on such an examination will afford a student credit for the course in question.

On the basis of examinations administered to candidates presenting some evidence of qualification, regularly enrolled students may be granted up to thirty semester-hours of undergraduate credit for other courses in the George Mason University curriculum. 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 thirty hours which transfer students are required to complete at George Mason University to earn a degree.

(3) Credit may not be earned by examination in foreign language at the 100 level but may be earned for foreign language courses at the 200 and 300 level.

These examinations will conform to University policies, be adequate to 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 the CLEP General Examinations. However, certain departments may utilize CLEP Subject Examination scores for total or partial credit in certain courses. Consult the individual department. The University Counseling and Psychological Services Center is a certified CLEP Administration Center.

CREDITS EARNED AT OTHER COLLEGES

The credits of students transferring from other institutions will be tentatively evaluated upon registration. 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 comparable to courses offered at George Mason. If such 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. Generally, no more than half of the total required semester hours in a student's George Mason baccalaureate program may be transferred from a junior or community college. A maximum of six semester-hours may be transferred from correspondence courses sponsored by regionally accredited institutions. Permission to take courses at other colleges and universities, in extension centers, and by correspondence must be approved in advance by the Dean of the respective College.

A student who expects to take summer courses at other colleges and to transfer credit to this University must submit his request to the Dean of the respective College by June 1. Catalog numbers and descriptions of courses shall be submitted with the request.
DECLARATION OF A MAJOR

Military service courses represent special cases and generally no credit is given.

A student 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 his College.

It is the responsibility of the student to see that the Recorder's Office receives an official transcript of work taken elsewhere before his record here can be credited.

CLASS STANDING

The minimum number of credits required for advancement to each class is as follows: sophomore, twenty-four semester-hours; junior, fifty-four semester-hours; senior, eighty-four semester-hours. A minimum of one hundred twenty semester-hours is required for graduation.

DECLARATION OF A 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 departmental chairman and/or faculty adviser and file the necessary form.

CHANGE OF MAJOR. A student who wishes to change his major should obtain the necessary form from his faculty adviser. In general, no student under academic sanction at George Mason University may transfer from one College within the University to another. Appeals for exception to this rule will be made to the Dean of the College to which the student wishes to transfer. Prior to seeking a change of major, the student should acquaint himself with minimum requirements in the new department.

DOUBLE MAJOR. A student who desires to graduate from George Mason University with a Bachelor of Arts degree, or a Bachelor of Science degree, in two subjects having established degree programs must meet departmental requirements for admission to the major in both fields. He must present at the time of his request a cumulative grade point average of at least 2.800.

The applicant should present to the chairmen of the departments involved a program showing in detail the curriculum he will pursue to graduation. This program must be approved by the departments involved and by the Dean of the respective College. The depart-
ments involved and the Dean must also approve all changes made thereafter.

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

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 fourteen semester-hours of work in the preceding semester, without failure in any course, and with a grade average in all courses of at least 3.000.

GRADUATION WITH DISTINCTION. George Mason University will recognize a student as graduating with distinction who has a grade point average of 3.000, with high distinction a student with grade point average of 3.500, and with highest distinction a student with a grade point average of 3.800. Such recognition shall be limited to students who have had sixty hours or more at George Mason University. (This distinction shall appear on the graduation program and on the student's transcript.) For those students entering before September 1972, please refer to previous catalogs in regard to graduation with distinction.
Academic Programs

General
Requirements
Application
Graduate Studies
Summer Session
Evening Session
Consortium Membership
GENERAL

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 seventeen areas: American studies, biology, chemistry, economics, English, French, German, government and politics, history, Latin American studies, mathematics, music, philosophy, physics, psychology, Spanish, and sociology. Courses of study in the College of Arts and Sciences leading to the Bachelor of Science degree are available in biology, economics, law enforcement, mathematics, physics, public administration, social welfare, and a Bachelor of Science in Chemistry (B.S. Chem.). Students interested in obtaining teaching certification at the secondary level have such an option while at the same time completing the requirements for a baccalaureate degree within the College of Arts and Sciences.

Major and degrees possible in the College of Professional Studies are: Bachelor of Science in Business Administration (B.S. in B.A.); and Bachelor of Science in Education (B.S. in Ed.) with majors in early childhood education, elementary education, and health and physical education.

For information regarding declaration of a major, see Academic Regulations, page 44.

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

An undergraduate student with the permission of his adviser, the chairman of the department offering the courses, the course instructor, and the Dean of the Graduate School may be permitted to enroll in graduate course work for grade and if successful, apply the credit so gained toward his undergraduate degree. The student should consult with the chairman of the department for identification of graduate course work which can be taken for undergraduate credit.

The University provides instruction in phases of Western and non-Western cultures including minority American cultures. In addition to the courses in minority cultures (Sociology of Race Relations and Minorities, Literature of Black America, and Black Religion, etc.), George Mason University provides courses in such subjects as American history and sociology, in which a portion of each course is devoted to the place, importance, and impact of the minority groups of the American culture. Other courses in such
REQUIREMENTS

SUBJECTS. As music, American literature, and American religious thought, reflect the contributions of minorities to the total field. Academic departments seek to choose textbooks which adequately represent the aspirations and contributions of American minority groups. The University cordially welcomes students from all minority groups.

REQUIREMENTS

RESIDENCE REQUIREMENTS. At least one-fourth of the total semester-hours presented on the degree application must be completed at George Mason University; and these shall include at least twelve semester-hours of advanced-level courses in the major program. Moreover, except with special permission of the Dean of his College, the student's final one-fourth of his college study must be completed here.

ACADEMIC ACHIEVEMENT. To qualify for a baccalaureate degree a student must be in good standing and must have satisfied all requirements for his program. In addition, he 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 has been established in each College to consider appeals in writing from students who may be two quality grade points and/or one semester-hour short of meeting degree requirements, to consider written appeals from students who have lost credit in transferring from a quarter-system, and to consider written appeals from students who have failed to meet certain area requirements.

CATALOG REQUIREMENTS FOR GRADUATION. A candidate for a degree may elect to graduate under the provisions of the catalog under which he entered or may elect to graduate under the provisions of a catalog subsequent to his entry 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 excluded.) 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.

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 thirty semester-hours of credit earned at George Mason University not presented toward the first degree.

APPLICATION

Students who expect to complete graduation degree requirements in 1973-74 must secure an Application for Degree Form from the Registrar's Office, complete, and return it to the Registrar's Office by the date designated on the University calendar. There is a $5.00 diploma fee which is payable at the time the student submits his Application for Degree. A new $5.00 fee is required each time a new application for graduation is submitted.

Any student not in attendance at George Mason 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.

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

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 Registrar's Office at least twenty-four hours prior to the date and time of the ceremony.

GRADUATE STUDIES

Information concerning graduate programs is presented in a separate catalog which may be obtained from the Graduate Admissions Office. Graduate programs are available at George Mason University in biology, business administration, economics, elementary education, guidance and counseling, reading, school administration, school supervision, secondary education, history, mathematics, and psychology.

SUMMER SESSION

Information concerning George Mason University Summer Session is presented in a separate catalog which is available in April from the Admissions Office.
EVENING SESSION

George Mason University now offers a greatly expanded evening program. Information concerning the Fall and Spring Evening Sessions is presented in separate catalogs which are available in August and December.

CONSORTIUM MEMBERSHIP

This institution is a member of the newly-formed Consortium for Continuing Higher Education in Northern Virginia. The other members are Northern Virginia Community College, University of Virginia, and Virginia Polytechnic Institute and State University. The concept is designed to permit acceptance of credits between member institutions and specific information is available in "The Consortium Guide to College and University Courses for Adults" distributed three times a year by the Office of the Consortium Administrator, 4210 Roberts Road, Fairfax, Virginia 22030. At the undergraduate level, George Mason University may accept up to ninety semester-hours of credit toward the baccalaureate degree.
Courses of Instruction and Degree Requirements

Introduction

College of Arts and Sciences

Degree Requirements
Department of Biology
Department of Chemistry
Department of Economics
Department of English
Department of Foreign Languages
Department of History
Department of Humanities
Department of Mathematics
Department of Physics
Department of Psychology
Department of Public Affairs
Department of Sociology
Interdisciplinary Programs
  American Studies
  Latin American Studies
  Law Enforcement

College of Professional Studies

Degree Requirements
Department of Business Administration
Department of Education
Department of General Studies
Introduction

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. A schedule of classes will be available before registration at the start of each semester. The University reserves the right to change the schedule and to adjust individual section enrollments as necessary.

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.

The number designations of the course descriptions below have the following significance:

A single number (as History 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.

A double number separated by a hyphen (as Biology 103-104) 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.

A double number separated by a comma (English 351, 352) indicates that the course extends through two semesters and that either semester may be taken by itself. Unless otherwise specified, the first semester is not prerequisite to the second semester.

In general, an odd number (as Biology 103) indicates that the course is given in the first semester of the session; an even number (Biology 104) indicates that the course is given in the second semester.

The credit in semester-hours is shown in brackets in each course description [3].

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 control.
College of Arts and Sciences
DEGREE REQUIREMENTS

BACHELOR OF ARTS

I. Arts and Literature ........................................... 12-30
   a. English Composition (6)
   b. Literature (6)
      This requirement is met by taking two of the one-semester courses of literature offered at the 200-level carrying the "English" designation.
   c. Art, Music, Philosophy, Religion (6)
      Music 113, 114, 115, 116, 171, 172, 215, 216, 218, 277, 278, 495, University Chorus, Concert Band, Symphony Orchestra, Collegium Musicum, Private Music Instruction, and art studio courses may not be used to meet this requirement.
   d. Foreign languages (0-12)
      The student must demonstrate proficiency in one foreign language through the intermediate level, either by examination or by completion of course work.

II. Social and Behavioral Sciences ............................. 12
   Disciplines included are grouped as follows:
      Group A: anthropology, psychology, sociology
      Group B: economics, government, history
   Six semester-hours are required from each group.

III. Mathematics and Natural Sciences .......................... 11
   Mathematics, geology, physics, astronomy, biology, chemistry.
   Eight of the required semester-hours must be in a two-semester sequence requiring laboratory work. The remaining three semester-hours may be met by the completion of a course in another science or in mathematics.

IV. Non-Western Culture ......................................... 6
   Six credits must be earned in courses devoted to non-Western culture. For the present, the following courses are designated as meeting this requirement:
      a. Anthropology 102: Social Anthropology
      b. Art 321 or 322: History of Ancient Art
c. English 393: Selections from the Literatures of the Indian Continent
   English 394: Japanese Literature in Translation
   English 395: Chinese Literature in Translation

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

e. History 241, 242: A Survey of East Asian Civilization
   History 261, 262: Survey of African Civilization
   History 281, 282: Survey of Middle Eastern Civilization
   History 328: Rise of Russia
   History 329: Modern Russia and The Soviet Union
   History 361: Latin-American History: The Colonial Era
   History 464: Modern India and Pakistan
   History 471: Modern China
   History 473: Modern Japan

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

g. Religion 211: Religions of the Near East
   Religion 212: Religions of the Orient
   Religion 334: Religion in the Theatre of Asia
   The courses meeting this requirement may also be presented in partial fulfillment of requirements stated in Sections I and II.

V. Major .......................................................... 30-42

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

VI. Total minimum semester-hours ....................... 120

   The new graduation requirements for the B.A. degree became effective for all freshmen who entered in the fall of 1968 or who enter thereafter and for all transferring students graduating in June 1972 or later. Students enrolled prior to September 1968 and transfer students who will graduate before June 1972 may elect to fulfill either the new or old (1967-1968 catalog) requirements.
BACHELOR OF SCIENCE

I. Fulfillment of the requirements for the major as listed under the respective departments: Biology, Chemistry, Economics, Mathematics, Physics, Public Administration and Sociology. For information concerning the interdisciplinary program in Law Enforcement see page 172.

II. At least twelve semester-hours of course work outside the area of specialization as follows:

(a) If the degree is in the behavioral sciences, twelve hours outside those fields.
(b) If the degree is in the natural sciences or mathematics, twelve hours outside those fields.
(c) If the degree is in the social sciences, twelve hours outside those fields.

III. At least twelve semester-hours of English.

IV. Total minimum semester-hours, 120.
ENGINEERING  
*(Two Years Only)*

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 the Bachelor of Science degree in any of the specialized areas offered at the University of Virginia or other schools of engineering. Although the engineering programs at the University of Virginia are formally designed for completion in four years, it is not unusual for a resident student there to spend five years completing the degree. See page 138 for course descriptions.

**SAMPLE SCHEDULE FOR THE ENGINEERING PROGRAM**

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td>Physics 113</td>
<td>Physics 114</td>
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<tr>
<td>Math 113</td>
<td>Math 114</td>
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<tr>
<td>Chem 111</td>
<td>Chem 112</td>
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<tr>
<td>Engl 101</td>
<td>Engl 102</td>
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<tr>
<td>Engr 101</td>
<td>Engr 102</td>
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<td>Engr 191</td>
<td>Engr 192</td>
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<th>Third Semester</th>
<th>Fourth Semester</th>
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<td>Physics 213</td>
<td>Physics 214</td>
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<td>Physics 215</td>
<td>Physics 216</td>
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<tr>
<td>Math 213</td>
<td>Math 214</td>
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<td>Engr 207</td>
<td>Engr 302</td>
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<td>Engr 285</td>
<td>Engr 206 or 208</td>
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<td>15</td>
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</tbody>
</table>
DEPARTMENT OF BIOLOGY

Professor Emsley (Chairman)
Associate Professors Ernst, Stanley, Wall
Assistant Professors Andrykovitch, Bradley, Elder, Frye, Hinton, Holdsworth, Joslin, Kelso, Mason, Shaffer, Sinclair, Skog, Wilson
Instructors Hays, Withers

REQUIREMENTS FOR THE MAJOR

B.S. and B.A. Degree.—All biology majors must demonstrate proficiency in elementary mathematics by either passing Mathematics 101: Algebra and elementary functions or passing the Mathematics Department proficiency test for that course.

B.A. Degree.—In addition to the general requirements, a minimum of thirty-two semester-hours in biology is required for the B.A. 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.

SAMPLE SCHEDULE FOR BACHELOR OF ARTS WITH MAJOR IN BIOLOGY

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td>English—(Ia)*</td>
<td>English—(Ia)</td>
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<tr>
<td>Foreign Language—(Id)</td>
<td>Foreign Language—(Id)</td>
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<tr>
<td>Chemistry—111 (III)</td>
<td>Chemistry—112 (III)</td>
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<tr>
<td>Biology—113 (III)</td>
<td>Biology—114 (III)</td>
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<th>Third Semester</th>
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<tr>
<td>English—(Ib)</td>
<td>English—(Ib)</td>
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<tr>
<td>Biology 283 or Biology elective</td>
<td>Biology elective or Biology 283</td>
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<tr>
<td>Elective—(IIA)</td>
<td>Elective—(IIA)</td>
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<tr>
<td>Foreign Language—(Id)</td>
<td>Biology elective</td>
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* Coding in parentheses refers to degree requirements on p. 54.

http://catalog.gmu.edu
B.S. Degree.—In addition to the general requirements, a B.S. degree with a major in biology requires a minimum of forty-four semester-hours in biology. The same core courses, taken in their respective years, 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.

Students planning to enter medical, dental or veterinary schools may choose to major in Biology. Those desiring medical careers may satisfy the entrance requirements with a B.A. degree but those in predentistry or preveterinary medicine are advised to seek B.S. degrees. In any case they should complete organic chemistry, a year of analytical geometry and calculus and Physics 101-102. Some schools prefer students with more extensive backgrounds in biological or physical sciences, 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 contact schools of his choice sometime before he applies for admission. The State of Virginia provides veterinary medicine educations for its residents through arrangements with the University of Georgia and Ohio State University. Information on this program is available from Dr. D. F. Watson, Department of Veterinary Science, Virginia Polytechnic Institute and State University, Blacksburg, Va. 24061.
### SAMPLE SCHEDULE FOR BACHELOR OF SCIENCE WITH MAJOR IN BIOLOGY*

<table>
<thead>
<tr>
<th>First Semester</th>
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<tbody>
<tr>
<td><strong>English 101</strong></td>
<td><strong>English 102</strong></td>
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<tr>
<td><strong>Biology 113</strong></td>
<td><strong>Biology 114</strong></td>
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<td><strong>Chemistry 111</strong></td>
<td><strong>Chemistry 112</strong></td>
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<td>Non-sci elective&lt;sup&gt;1&lt;/sup&gt;</td>
<td>Non-sci elective&lt;sup&gt;1&lt;/sup&gt;</td>
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<td><strong>English Lit</strong></td>
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<td>Biology elective or</td>
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<td><strong>Bio</strong> elective</td>
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<td><strong>Chemistry 213–Lab I</strong></td>
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<td><strong>Chemistry 214–Lab II</strong></td>
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<td>Biology elective</td>
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<td><strong>Biology 311 or 445</strong></td>
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<td><strong>Biology elective</strong>&lt;sup&gt;5&lt;/sup&gt;</td>
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<td><strong>Biology 445 or 311</strong></td>
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<td><strong>Biology elective</strong>&lt;sup&gt;3&lt;/sup&gt;</td>
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<td><strong>Biology elective</strong>&lt;sup&gt;4&lt;/sup&gt;</td>
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<td><strong>Biology elective</strong>&lt;sup&gt;5&lt;/sup&gt;</td>
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Signatures 1-5:
- For students intending to pursue graduate study in Biology the following are recommended.
  - Foreign Language (German, Russian, or French)
  - Physics 101-102
  - Mathematics 113-114
  - Mathematics 266
  - Biostatistics
- See Introduction, page 52.

* Undergraduate Catalog 1973-1974
George Mason University

http://catalog.gmu.edu
BIOLOGY COURSES

103-104: MAN AND HIS ENVIRONMENT. [4-4]
Biology for non-science majors. The course is strongly biased towards the consideration of biological problems facing modern man. Topics discussed will include theories of the origin of earth and life, energy and the environment, plant and animal communities, principles of human anatomy and physiology, the mechanisms of inheritance and evolution, and the evolution of man. Three lecture hours, three laboratory hours. Neither semester may be combined with 113-114 for fulfillment of the science requirement. Students who have taken Biology 101-102: General Biology, are not eligible to take this course.

113-114: BIOLOGICAL SCIENCE. [4-4] or [2-2 if credit has been previously earned in 103-104]
An introductory course for prospective science majors and pre-professionals in the life sciences. The study of living organisms, their origin and types; the principles of metabolism, growth, reproduction, heredity, adaptation, and evolution. Three lecture hours, three laboratory hours. Only twelve semester-hours of credit may be earned in 100 level Biology courses. Students who have taken Biology 101-102: General Biology, are not eligible to take this course.

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.

220: COMPARATIVE CHORDATE ANATOMY. [4]
Prerequisite: Biology 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 cat. Two lecture hours, six laboratory hours.

221: VERTEBRATE ZOOLOGY. [4]
Prerequisite: 8 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.
224: HUMAN ANATOMY AND PHYSIOLOGY. [4]
Prerequisites: Biology 113-114 or permission of instructor. The microscopic and gross structure, and integrated function of the major organ systems of the human body. Three lecture hours, three laboratory hours. This course is intended for students in nursing and premedical programs. Credit is not available towards the B.A. or B.S. with major in Biology.

243: ALGAE AND FUNGI. [4]
Prerequisite: Biology 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: 8 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.

Prerequisites: 8 semester-hours of credit in 100 level Biology or permission of instructor. A survey of the fauna of North and South America, with a comparison with that of other regions, and with an examination of the causes of the differences and similarities. Emphasis will be placed upon vertebrates. Three lecture hours.

281: MICROBIOLOGY. [4]
Prerequisites: Biology 113-114, and 283, or permission of instructor. Fundamentals of the morphology, physiology, and biochemical characteristics of bacteria, rickettsia, and viruses. Three lecture hours, three laboratory hours.

283: CELL BIOLOGY. [4]
Prerequisites: Biology 113-114, Chemistry 111, or permission of instructor. The study of cellular structure and function including cellular fine structure, metabolism, growth, active transport, and cellular regulation. Three lecture hours, three laboratory hours.

Prerequisite: Biology 113-114 or permission of instructor. An introduction to the bacteria, yeasts, molds, viruses, rickettsias and endoparasites with emphasis on organisms important in human health and disease. A discussion of immunity and serologic procedures. The laboratory includes sterile technique and culture methods.
tended for students in nursing and other paramedical programs. Three lecture hours, three laboratory hours. Not available for credit towards the major in Biology.

311: GENERAL GENETICS. [4]
Prerequisites: Biology 113-114, 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: Biology 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: Biology 113-114, and 283, or permission of 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, insect, frog, chicken, and pig. An introduction to some techniques of experimental embryology is included. Two lecture hours, six laboratory hours. Students who have taken Biology 222: Vertebrate Embryology, are not eligible to take this course.

324: INTRODUCTORY ANIMAL BEHAVIOR. [4]
Prerequisite: Biology 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: 8 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: 8 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: Biology 113-114 or permission of instructor. Origin and development of organs and tissue systems 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: 8 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.

362: VERTEBRATE PHYSIOLOGY. [4]
Prerequisite: Biology 113-114, 283, Chemistry 112, or permission of instructor. A general survey of the functions of the organ systems of vertebrates. Fundamental experiments in the physico-chemical phenomena of nerve and muscle, blood and circulation, respiration, digestion, electrolyte balance, and excretion. Three lecture hours, three laboratory hours.

381: IMMUNOLOGY. [4]
Prerequisite: Biology 113-114, 283, 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.

411: ADVANCED GENETICS. [4]
Prerequisite: Biology 311 or the equivalent. Advanced classical, physiological and population genetics with emphasis on problems in current research. Three lecture hours, three laboratory hours.

412: MICROBIAL GENETICS. [4]
Prerequisites: Biology 113-114, and 281, or permission of instructor. An introduction to genetic principles and methodology applicable to microorganisms. The chemical nature, fine structure, and function of the gene as revealed by the study of microorganisms. Three lecture hours, three laboratory hours.

441: PLANT ANATOMY. [4]
Prerequisite: Biology 113-114 or permission of instructor. A detailed study of plant cells and tissues, their derivation and development. Embryological development is included. Three lecture hours, three laboratory hours.

Prerequisites: Biology 113-114, 283 and one other course in biology and junior standing, or permission of instructor. The physical en-
virement, 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.

446: PHYSIOLOGICAL VERTEBRATE ECOLOGY. [3]
Prerequisite: Biology 113-114 or permission of instructor. The influences of environmental factors on the physiological responses of organisms. 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. Three lecture hours.

448: SYMBIOLOGY. [4]
Prerequisite: Biology 113-114 and 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.

462: ADVANCED CELLULAR PHYSIOLOGY. [4]
Prerequisites: Biology 113-114, 283, 8 semester-hours of inorganic chemistry and 4 semester-hours of organic chemistry, or permission of instructor. A study of the fundamental physiological properties and correlated anatomy of cells. Three lecture hours, three laboratory hours.

464: PLANT PHYSIOLOGY. [4]
Prerequisites: Biology 113-114, 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.

Prerequisite: Biology 113-114 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]
Prerequisites: Biology 113-114, and Biology 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: 8 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.

481: SELECTED TOPICS IN VERTEBRATE ZOOLOGY. [4]
Prerequisite: 8 semester-hours of credit in 100 level Biology. Emphasis in any one semester will be one or more present day or extinct taxa. The groups emphasized will vary from semester to semester. 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: Fifteen lecture hours, ninety laboratory hours.

497-498: SPECIAL PROBLEMS IN BIOLOGY. [2-2]
Prerequisite: Enrollment is restricted to senior majors in biology with permission of the instructor. A laboratory or field investigation under the guidance of a member of the faculty. Students who have taken Biology 499: Special Problems in Biology, are not eligible to take this course.
DEPARTMENT OF CHEMISTRY

Professors Walter (Chairman), Krug
Associate Professors Cozzens, Feinstein, Mushrush
Assistant Professors Greer, Keeler, Stalick, Yonuschot
Instructor Eassa
Lecturer Ali

REQUIREMENTS FOR THE MAJOR

B.A. Degree.—In addition to general degree requirements, a minimum of thirty-two semester-hours in chemistry is required for a B.A. degree with a major in chemistry. These must include Chemistry 111-112, 213-214, 215, 218, 220, 321, 331, 332, 336, and 337. The language requirement is satisfied by German or French, although German is recommended for those planning a professional career in chemistry. Additional minimum requirements include Mathematics 113, 114, 213 and Physics 101-102.

SAMPLE SCHEDULE FOR B.A. IN CHEMISTRY*

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<thead>
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<th>First Semester</th>
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* See Introduction, page 52.
### Chemistry 331, 336, 461

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**B.S. in Chemistry**—Minimum course requirements are:

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**Total:** 120

Required courses in chemistry must include those indicated for the B.A. degree plus Chemistry 422, 441, and 445.

### Sample Schedule for B.S. in Chemistry*

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* See Introduction, page 52.
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**CHEMISTRY COURSES**

103-104: **CHEMICAL SCIENCE IN A MODERN SOCIETY. [4-4]**
A terminal course in chemistry for non-science majors. A survey of the principles and application of chemistry with emphasis on pertinent topics such as environmental pollution, medicine, synthetics, 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 (geochemistry, atmospheric chemistry, etc.) as well as industrial and agricultural chemistry.

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: Chemistry 111-112; corequisite for 213: Chemistry 215. Corequisite for 214: Chemistry 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, Chemistry 215. In the second semester students may choose either of two accompanying laboratory courses, Chemistry 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: Chemistry 213. Elementary laboratory techniques and reactions arranged to accompany Chemistry 213. Three laboratory hours.

218: ORGANIC CHEMISTRY LABORATORY II. [1]
Corequisite: Chemistry 214. Continuation of Chemistry 215 with emphasis on specialized techniques and preparations. This course is arranged to accompany Chemistry 214. Three laboratory hours.

220: ORGANIC CHEMISTRY LABORATORY II. [1]
Corequisite: Chemistry 214. Continuation of Chemistry 215 with emphasis on separation and identification of organic compounds using both classical and instrumental methods. This course is arranged to accompany Chemistry 214. Three laboratory hours.

222: CHEMICAL EQUILIBRIUM. [2]
Prerequisite: Chemistry 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: Chemistry 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: Chemistry 111-112, Mathematics 113, 114. Prerequisite or corequisite: Physics 101-102. This course and Chemistry 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: Chemistry 331. Continuation of Chemistry 331. Three lecture hours.

336: PHYSICAL CHEMISTRY LABORATORY I. [1]
Prerequisite or corequisite: Chemistry 331. Quantitative experimental study of physical chemical principles. This course and Chemistry 337 constitute a year-long introduction to laboratory practices and theories of experimental physical chemistry. Three laboratory hours.
PHYSICAL CHEMISTRY LABORATORY II. [1]
Prerequisite or corequisite: Chemistry 331. Continuation of Chemistry 336. Three laboratory hours.

INSTRUMENTAL ANALYSIS. [4]
Prerequisite: Chemistry 321; prerequisite or corequisite: Chemistry 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 use of modern analytical instrumentation. It offers the student an introduction to the theory and practice of emission spectroscopy; ultraviolet, visible, and infrared absorption spectroscopy; electrical methods of analysis; gas chromatography; nonaqueous studies; and ion exchange. Two lecture hours, six laboratory hours.

ATOMIC AND MOLECULAR STRUCTURE. [3]
Prerequisite: Chemistry 331, 332. An introduction to modern theories of the nature of the chemical bond and application of these theories to the dynamics of chemical systems. Studies are made of the various experimental techniques which are applied to the elucidation of molecular structure. Three lecture hours.

INORGANIC CHEMISTRY. [3]
Prerequisite: Chemistry 213-214, 321. Descriptive chemistry of inorganic elements and compounds is used to demonstrate principles and periodic relationships. Emphasis is on structure and bonding as related to properties. Three lecture hours.

INORGANIC PREPARATIONS AND TECHNIQUES. [3]
Prerequisite: Chemistry 321. Application of the techniques of inorganic chemistry to the preparation and purification of selected substances. One lecture hour, six laboratory hours.

SPECIAL PROJECTS IN CHEMISTRY. [2, 2]
Prerequisite: Senior standing in chemistry and permission of the instructor. An introduction to chemical research or development. Will include literature search, conferences, and laboratory. Written and oral technical reports are required. Six hours weekly.

BIOCHEMISTRY. [3, 3]
Prerequisite: Chemistry 213-214. Chemistry 461 is a prerequisite for Chemistry 462. Chemistry of biologically important compounds, viz. proteins, carbohydrates, lipids, and nucleic acids, and their interrelations.
DEPARTMENT OF ECONOMICS

Professor Snavely (Chairman, Fall 1973)
Associate Professors Bloch, Hayn, Phillips
Assistant Professors Chung, Solomon
Acting Assistant Professor Wiest
Lecturers Cassidy, Schwer

REQUIREMENTS FOR THE MAJOR

B.A. Program

Students majoring in economics must satisfy the area requirements set for the Bachelor of Arts degree at George Mason University. In addition they must present thirty-three hours of work in economics, to include Economics 201 and 202. Six hours of statistics must be completed in addition to the thirty-three hours of economics mentioned above.

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

SAMPLE PROGRAM B.A. IN ECONOMICS*

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* See Introduction, page 52.
In addition to the general degree requirements, the B.S. with a major in Economics requires 39 hours of credit in economics to include Economics 201, 202 and 412. In addition to the 39 hours of credit in economics, students must also complete Business Administration 101 and 261-262; Mathematics 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 Mathematics 114.

**SAMPLE PROGRAM B.S. WITH A MAJOR IN ECONOMICS***

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* See Introduction, page 52.
ECONOMICS COURSES

100: THE ECONOMICS OF PUBLIC ISSUES. [3]
This course does not fulfill any requirements for a degree in economics. Economics for non-majors. An introduction to economics in the context of contemporary issues. Typical subjects include: the economics of crime prevention, public education, abortion repeal, prostitution, negative income taxes, unemployment, inflation, and pollution abatement.

101: PRINCIPLES OF ECONOMICS. [3]
An introductory course emphasizing macroeconomic analysis. Topics considered include national income analysis, money and banking, economic growth and stability, unemployment, inflation, and the role of government in the economy.

102: PRINCIPLES OF ECONOMICS. [3]
A course emphasizing introductory microeconomic analysis. Basic economic concepts and theories of production, value, price, and economics of the firm, and functional distribution are considered and applied under varying conditions of the market.

201: INTERMEDIATE MACROECONOMICS. [3]
Prerequisite: Economics 101 and 102 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.

202: INTERMEDIATE PRICE THEORY. [3]
Prerequisite: Economics 101 and 102 or permission of instructor.
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.

300: LABOR PROBLEMS. [3]
Prerequisite: Economics 101 and 102 or permission of the 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.
301: MONEY AND BANKING. [3]
Prerequisite: Economics 101 and 102 or permission of instructor.
An examination of monetary and commercial and central banking systems in the economic system with particular emphasis upon their relationship with American governmental programs, fiscal policies, and controls.

302: PUBLIC FINANCE. [3]
Prerequisite: Economics 101 and 102 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.

303: ECONOMIC GROWTH AND BUSINESS CYCLES. [3]
Prerequisite: Economics 101 and 102 or permission of instructor.
Prior completion of Economics 201 and 202 is recommended. An examination of the factors contributing to sustained economic growth with additional emphasis on business fluctuations and their measurement.

304: ECONOMICS OF INDUSTRIAL ORGANIZATION. [3]
Prerequisite: Economics 101 and 102 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.

305: REGIONAL ECONOMICS. [3]
Prerequisite: Economics 202 or permission of instructor. Discusses the economics of urban structure, regional development, industrial location, land utilization, and other locational factors affecting spatial preferences and patterns.

307: ECONOMICS OF DEVELOPING AREAS. [3]
Prerequisite: Economics 101 and 102 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.

308: ECONOMIC DEVELOPMENT OF LATIN AMERICA. [3]
Prerequisite: Economics 101 or permission of instructor. An examination of the economic development, institutions and problems of Latin America.
401: COMPARATIVE ECONOMIC SYSTEMS. [3]  
Prerequisite: Economics 101 and 102 or permission of instructor.  
An examination of the theory, programs, and practices of selected  
major contemporary economic systems, to include capitalism, socialism, and fascism. Special attention is given to the role of planning  
in the western European countries.

403: DEVELOPMENT OF ECONOMIC THOUGHT. [3]  
Prerequisite: Economics 101 and 102 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 va-  
validity.

404: INTERNATIONAL ECONOMICS. [3]  
Prerequisite: Economics 101 and 102 or permission of instructor.  
A survey of the foreign exchange market, of the balance of pay-  
ments, of foreign trade policies, and of the Classical, Neoclassical,  
and modern theories of international trade.

406: ECONOMIC PROBLEMS AND PUBLIC POLICIES. [3]  
Prerequisite: Economics 101 and 102 or permission of instructor.  
A detailed study of important economic problems in light of cur-  
rent and proposed public policies.

412: QUANTITATIVE ECONOMIC ANALYSIS. [3]  
Prerequisite: Economics 201, 202, Business Administration 261-262.  
An examination of modern statistical techniques in estimating eco-  
nomic relations.

420: ECONOMICS OF LABOR. [3]  
Prerequisite: Economics 101 and 102 or permission of instructor.  
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.

430: SEMINAR IN ECONOMICS. [3]  
Prerequisite: Economics 201, 202 and permission of instructor. A  
course in which the more important current economic problems will  
be studied and discussed in seminar form.
DEPARTMENT OF ENGLISH

Professors Sundell (*Chairman*, Fall 1973), S. Brown, Jackson
Associate Professors Garson, Gras, Karlson, Molin, Walls
Assistant Professors L. Brown, Keith, Kelley
Acting Assistant Professor Churchman
Instructors Derr, Duffner, Foreman, Gallehr, Gibson, Keaney,
Lowderbaugh, Morgan, Mussell, Romans, Palmieri
Lecturers Gordon, Griffin, Morrison, Nelson

REQUIREMENTS FOR THE MAJOR

In addition to the area requirements for B.A. degrees, students
who wish to graduate with an English major must complete thirty
hours of course work beyond sophomore English, with the following
distribution:

1. One three-semester hour course from the following: English
   391, General Linguistics; English 392, History of the English Lan-
   guage; and English 341, Chaucer.

2. One three-semester hour course from English 351, 352,
   Shakespeare.

3. Two courses in English literature prior to 1800 A.D. These
   comprise the courses in this catalog numbered from English 341,
   Chaucer, through 358, The Age of Johnson. One of these two
   courses should be in the literature of a period; these are English
   342, 345, 354, 357, and 358. (English 341, Chaucer, should not be
   used for both this requirement and requirement 1 above.)

4. One three-semester hour course from offerings in American
   literature; there are English 381, 382, 384 through 390, and may
   include English 442, 444, and 446 when these are organized on
   American literature subjects.

SAMPLE SCHEDULE FOR ENGLISH MAJORS*

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\* See Introduction, page 52.
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<tr>
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<td>Art, music, phil., or religion</td>
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**ENGLISH COURSES**

**101-102: COMPOSITION AND INTRODUCTION TO LITERATURE.** [3-3]
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.

**203, 204: WESTERN LITERARY MASTERWORKS.** [3, 3]
*Prerequisite: English 101-102.* Study in translation of some of the great works of Western civilization by such writers as Homer, Sophocles, Euripides, Dante, Cervantes, Flaubert, Dostoevski, Tolstoy, Mann, Camus, Malraux, Ionesco, and Beckett.

**205, 206: READINGS IN ENGLISH AND AMERICAN LITERATURE.** [3, 3]
*Prerequisite: English 101-102.* Study of English and American literature by types. English 205 is a study of selected English and American poetry and drama; such dramatists as Marlowe, Shake-
speare, Shaw, O'Casey, O'Neill, and Albee are read, and such poets as Donne, Keats, Whitman, Frost, Eliot and Auden. English 206 provides study of selected English and American novels, short stories, and essays. Such fiction writers as Lawrence, Hemingway, Faulkner, Melville, Crane, E. Bronte, Fitzgerald and Barth are studied, and some writers of non-fiction.

251, 252: SURVEY OF ENGLISH LITERATURE. [3, 3]
Prerequisite: English 101-102. Study of the important literary movements and works of English literature, from beginnings to the present. Particularly recommended for prospective English majors.

English 101-102 and two three-hour courses from 200-level English courses are prerequisites for all English 300 and 400 courses.

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.

341: CHAUCER. [3]
A study of the major works of Chaucer, with emphasis on The Canterbury Tales.

342: LITERATURE OF THE MIDDLE AGES. [3]
A study of selected English narrative, dramatic, and homiletic literature written between 1300 and 1500 A.D., exclusive of Chaucer.

345: ENGLISH LITERATURE OF THE SIXTEENTH CENTURY. [3]
Study of the poetry and prose of the early Renaissance in England.

346: SPENSER. [3]
A study of a major portion of the poetry of Edmund Spenser, with central emphasis upon The Faerie Queene.

351, 352: SHAKESPEARE. [3, 3]
Twenty selected plays. First semester emphasizes histories and comedies; second semester, tragedies and romances.
353: ENGLISH RENAISSANCE DRAMA. [3]
A study of major dramas and dramatists of the English Renaissance, exclusive of Shakespeare.

English poetry and prose from 1603 to 1688, excluding Milton.

355: MILTON. [3]
Study of 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 tragedy, 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]
Study of 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]
Study of the development of English literature of the late eighteenth century; readings from Dr. Johnson and his contemporaries with attention to the pre-Romantics.

361, 362: ENGLISH POETRY OF THE NINETEENTH CENTURY. [3, 3]
A study of the major poetry of the nineteenth century. The first semester deals with the Romantic poets, the second with Victorian.

363: ENGLISH PROSE OF THE NINETEENTH CENTURY. [3]
A study of major prose writing of the nineteenth century, by such authors as Coleridge, Carlyle, Arnold, Ruskin, and Newman.

365: ENGLISH POETRY OF THE TWENTIETH CENTURY. [3]
Study of 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.
The history of the English novel with intensive critical reading of representative works. English 371 concerns the English novel from its beginnings through the mid-nineteenth century and deals with such writers as Fielding, Sterne, Austen, Emily Bronte, Thackeray, and Dickens. English 372 concerns the English novel from the mid-nineteenth century to the present and deals with such authors as Hardy, Conrad, Bennett, Forster, Lawrence, Joyce, Woolf, Huxley, Greene, Cary, Powell and Golding.

374: ENGLISH AND IRISH DRAMA OF THE TWENTIETH CENTURY. [3]
A study of 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]
An intensive study of 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]
Study of selected European novels in translation. English 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, Dostoievsky, Tolstoy, and Galdos. English 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.

381: COLONIAL AND FEDERALIST AMERICAN LITERATURE. [3]
Study of the works of authors of the first 200 years of American literature, including Edwards, Franklin, Irving, Cooper, and Bryant.

382: LITERATURE OF THE AMERICAN RENAISSANCE. [3]
A study of the major writers of the American Renaissance (1830-1865), with emphasis on the works of Emerson, Thoreau, Hawthorne, Melville, Whitman, and Poe.

* Offered in cooperation with the Department of Foreign Languages.
A study of 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]
Study of 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]
A study of 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]
A study of 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: PLAYS OF TWENTIETH CENTURY AMERICAN DRAMATISTS. [3]
An intensive study of 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]
A study of major American poets from World War II to the present, with emphasis on the work of such poets as Roethke, Wilbur, Dickey, Lowell, Merwin, Kinnell, and Ammons.

391: GENERAL LINGUISTICS. [3]
Introduction to general linguistics: phonics, phonemics, morphology, and syntax.
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]
Study of selected literary masterpieces in translation from the ancient and modern literatures of the Indian continent, including romances, plays, and poetry from Sanskrit, Hindi, Tamil, Urdu, and other literatures. (Course credit accepted for the BA non-Western proviso but not in the English major.)

394: JAPANESE LITERATURE IN TRANSLATION. [3]
Study of 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 those masterpieces. (Course credit accepted for the BA non-Western proviso but not in the English major.)

395: CHINESE LITERATURE IN TRANSLATION. [3]
Study of selected masterpieces of Chinese literature 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.

397: SEMINAR IN CREATIVE WRITING. [3]
Prerequisite: Permission of instructor. Intensive study of the theory and practice of creative writing. 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 may not, however, be counted toward the requirements for the English major.)

398: THE FILM AS NARRATIVE. [3]
Study of American and continental films with emphasis on dramatic structure of the narrative film. Films by such directors as Welles, Kazan, Bergman, Truffaut, and Antonioni. Required viewings; student discussion and written critiques. (Course credit not accepted toward the major in English.)
399: TYPES OF FILM. [3]
Approaches to film through types, the films and types varying from year to year. Emphasis on narrative and dramatic structure in such types as the Western, the epic, the musical, the thriller, and situation comedy, and on scope and viewpoint in the documentary and the experimental short. Required viewings; student discussion and written critiques. (Course credit not accepted toward the major in English.)

430: TRAGEDY. [3]
This course traces the tragic mode as it manifests itself in various forms from Hebraic times to the present. Included are readings from the Old Testament; classical, Elizabethan, neoclassical, and modern drama; tragic poems and tragic novels. Such major authors as Homer, Aeschylus, Sophocles, Euripides, Shakespeare, Racine, Ibsen, Dostoievski, Tolstoy, and Kafka will be studied.

431: COMEDY. [3]
This course explores the comic vision as it manifests itself in major literary works of a variety of periods and types: classical and neoclassical comic drama; non-classical and modern forms of comic drama; and comic poems and comic novels. Such major comic authors as Aristophanes, Jonson, Shakespeare, Moliere, Fielding, Dickens, Barth, and Beckett will be studied.

442: STUDIES IN ENGLISH AND AMERICAN LITERARY TOPICS, PERIODS OR GENRES. [3]
Study in depth of a selected literary topic, period, or genre, as announced.

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.

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.

451: INTRODUCTION TO LITERARY CRITICISM. [3]
This course is intended primarily for English majors in their senior year. Others may be admitted with permission of the instructor. Study of the major critical theories and techniques of the twentieth century. Exercises in critical analysis.

467: EXPOSITORY WRITING. [3]
Theory and practice of advanced expository writing; practice in analyzing and writing essays, articles, and other expository forms. (Not a remedial course.)
470: INDEPENDENT STUDY. [3, 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 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 major piece of written work during the semester on the findings of his research. A student may not present more than six hours of independent study for graduation credit.
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]
Study of techniques of copy editing, including copy preparation, headline writing, news judging, and newspaper makeup. 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: Journalism 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: Journalism 201. Practical experience at writing and editing for the student newspaper, coordinated with the instruction in Journalism 201. May be taken three semesters for a total of three credit hours.

SPEECH COURSES

151: PRINCIPLES OF EFFECTIVE SPEAKING. [3]
An introduction to the techniques of effective oral presentation, emphasizing impromptu and extemporaneous speaking.

152: PUBLIC SPEAKING. [3]
Prerequisite: Speech 151. A study of principles and types of public address, with emphasis on expository and persuasive speaking. Intensive practice in composition and delivery.

251: INTRODUCTION TO GROUP CONFERENCE. [3]
Introduction to group conference, with development of participant and leadership skills. Preliminary study of group dynamics. Participation in practice conferences.

255: FUNDAMENTALS OF ORAL INTERPRETATION. [3]
Prerequisite: Speech 151 or permission of the instructor. A study of the principles involved in the oral communication of the written word in its intellectual, emotional and aesthetic entirety. Practice in the oral communication of prose and poetry.
FOREIGN LANGUAGES

DEPARTMENT OF FOREIGN LANGUAGES

Professor Willis
Associate Professors Elstun (Chairman), Font, Tedder
Assistant Professors Aguera, Brooks, Bufill, Cordero, Evans, Hazera, Hobson, LePage, Meyer, Sehrt
Instructors Jansen, Wekerle
Lecturers Castillo, Crissman, Grimes, Hecht, Morlang, Urso

GENERAL. Advances in global communications have so compressed time and space that we have achieved instant awareness of events anywhere in our world. The reactions of people are immediate; misinterpretation can precipitate instant catastrophe. For a nation to follow a prudent yet rational course, its people must be educated as positive, active, productive citizens of a community of nations. If we are to understand the past and the present of even our own nation, the mastery of at least one language other than our native tongue is essential; it is also a means of achieving human understanding and of placing the human experience in proper context. As a distinguished scholar eloquently put it: "One language alone is a barrier to understanding... Two languages are the beginning of a bridge... the beginning of mutual understanding among men who are one in their humanity."

FRENCH REQUIREMENTS FOR THE MAJOR

The degree program in French prepares students for teaching French at the secondary level, for graduate study in French, or for positions in government or private enterprise that require a knowledge of French.

Twenty-seven hours of work in French courses at the 300- and 400-levels are required for the major. It is recommended that the student also complete related courses in history, philosophy, humanities and linguistics. To major in French, a student should have at least a "C" average in his previous French courses.

SAMPLE SCHEDULE FOR FRENCH MAJORS*

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td>French 151</td>
<td>French 152</td>
</tr>
<tr>
<td>Natural Science</td>
<td>Natural Science</td>
</tr>
<tr>
<td>English Composition</td>
<td>English Composition</td>
</tr>
<tr>
<td>Social or Behavioral Science</td>
<td>Social or Behavioral Science</td>
</tr>
<tr>
<td>Music 101 or 203 or Art 101</td>
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</tbody>
</table>

* See Introduction, page 52.
### Third Semester
- French 251
- English Literature
- Mathematics or a Science
- Non-Western Culture
- Social or Behavioral Science

### Fourth Semester
- French 252
- English Literature
- Non-Western Culture
- Social or Behavioral Science

### Fifth Semester
- French 353
- French 361 or 375
- French 377
- English 391
- Music or Philosophy

### Sixth Semester
- French 354
- French 362 or 376
- French 378
- English 392
- Philosophy

### Seventh Semester
- Art, or English 397, 399, 431, 451 or History (European or French)
- French 411 or 415
- French 419 or 423
- French 427 or 433

### Eighth Semester
- Art or History (European or French)
- French 412 or 416
- French 419 or 423
- French 434

### FRENCH COURSES

**151-152: ELEMENTARY FRENCH. [4-4]**
Intensive introduction to French, including basic grammar, reading, aural training and the development of oral skills. *Four classroom hours and two laboratory hours per week.*

**153: REVIEW OF ELEMENTARY FRENCH. [4]**
An intensive review of the grammar, syntax and pronunciation taught in French 151-152; designed for students who have had two years of secondary school French but whose proficiency does not qualify them for French 251. *Students may not receive credit for French 151-152 and 153. Four classroom hours, two laboratory hours per week.*

**251: INTERMEDIATE FRENCH. [4]**
*Prerequisite: French 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. *Four classroom hours, two laboratory hours per week.*
252 to 257. Application of the language skills acquired in French 151-152, 251 in one or more of the following subject areas, which may be studied singly, concurrently, or in any order.

252: FRENCH CONVERSATION. [3]
Prerequisite: French 251 or equivalent. Development of oral proficiency in French. Twelve selected topics that touch on various practical aspects of everyday life.

253: FRENCH CULTURE. [3]
Prerequisite: French 251 or equivalent. An introduction to the background of French life and culture.

254: READING AND TRANSLATION OF FRENCH SCIENTIFIC TEXTS. [3]
Prerequisite: French 251 or equivalent. Reading and translation of selected texts in the various sciences; introduction of basic scientific vocabulary.

255: FRENCH LITERARY MASTERPIECES. [3]
Prerequisite: French 251 or equivalent. Reading and discussion of selected works of French literature.

256: FRENCH PRONUNCIATION. [3]
Prerequisite: French 251 or equivalent. Analytical description of French speech and pronunciation practice with emphasis on exercises designed specifically for the Anglo-American student.
Three classroom hours, two laboratory sessions per week.

257: READINGS IN FRENCH LITERATURE. [3]
Prerequisite: 251 or permission of instructor. Readings of French literary works in the original language with all lectures, discussions, and examinations in English. Designed for non-major students.

325: MAJOR FRENCH WRITERS. [3]
May not be taken in fulfillment of requirements for the major in French. Study of the works of a major French writer (e.g., Camus, Sartre, Beckett) in translation, with all course work in English. The writer to be studied will vary and will be announced in each semester’s “Schedule of Classes.”

351: ADVANCED FRENCH GRAMMAR. [3]
Prerequisite: French 251 or permission of instructor. Offered every year. A study of the phonology, syntax and morphology of modern standard French.
353, 354: ADVANCED CONVERSATION AND COMPOSITION. [3, 3]
Prerequisite: Fifteen semester-hours of French or permission of the instructor. Offered in alternate years. Written and oral reports and conversation on political, literary and artistic topics and current events.

361, 362: APPLIED FRENCH LINGUISTICS. [3, 3]
Prerequisite: Fifteen semester-hours of French or permission of the instructor. Offered in alternate years. A course in phonetics, phonemics, morphemics and syntax of modern standard French. Three classroom hours per week, laboratory session at the discretion of the instructor.

375, 376: FRENCH CULTURE AND CIVILIZATION. [3, 3]
Prerequisite: Fifteen semester-hours of French or permission of the instructor. Offered in alternate years. A study of the outstanding contributions of France to world civilization from medieval times to the present, with emphasis on the development of her ideas, arts, sciences, and institutions.

377, 378: SURVEY OF FRENCH LITERATURE. [3, 3]
Prerequisite: Fifteen semester-hours of French or permission of the instructor. Offered in alternate years. A survey of French literature from the Chanson de Roland to the present, with close readings of works of representative major writers through the centuries.

411, 412: FRENCH LITERATURE OF THE TWENTIETH CENTURY. [3, 3]
Prerequisite: Fifteen semester-hours of French or permission of the instructor. Offered in alternate years. Principal literary trends and genres in French literature since 1900. French 411 studies such authors as Proust, Gide, Claudel and Valery. French 412 deals with Existentialism, the "Nouveau Roman," and the "Nouveau Theatre." Representative authors such as Sartre, Camus, Robbe-Grillet, Butor, Ionesco and Beckett are studied.

415, 416: FRENCH LITERATURE OF THE NINETEENTH CENTURY. [3, 3]
Prerequisite: Fifteen semester-hours of French or permission of the instructor. Offered in alternate years. The poetry, theatre, and novel of the romantic, realist, and symbolist periods; authors to be studied in the first semester include Lamartine, Hugo, Stendhal, Balzac; in the second semester, Flaubert, Baudelaire, Rimbaud, Mallarme, Verlaine, Zola.
419, 420: FRENCH LITERATURE OF THE EIGHTEENTH
CENTURY. [3, 3]
Prerequisite: Fifteen semester-hours of French or permission of the
instructor. Offered in alternate years. The study of Voltaire, Montesquieu,
Rousseau and Diderot, whose major writings reflect the
political, philosophical, social and artistic ideas of "l'age des
Lumieres."

423, 424: FRENCH LITERATURE OF THE SEVENTEENTH
CENTURY. [3, 3]
Prerequisite: Fifteen semester-hours of French or permission of the
instructor. Offered in alternate years. A study of the Classical
period. Reading and class discussion of the principal masterpieces
of the century, with emphasis on Descartes, Pascal, Corneille,
Racine, Moliere and LaFontaine. Other significant works are studied
in the light of their relation to literary, ideological and social currents in France from the Age of the Baroque to the Querelle des
Anciens et des Modernes.

427: FRENCH LITERATURE OF THE RENAISSANCE. [3]
Prerequisite: Fifteen semester-hours of French or permission of the
instructor. Offered in alternate years. Renaissance and Humanism
in France in the sixteenth century. A survey in historical sequence of the major trends of French prose and poetry from Marot to the
Pleiaade, from Rabelais to Montaigne.

433: FRENCH STYLISTICS. [3]
Prerequisite: Fifteen semester-hours of French or permission of the
instructor. Offered in alternate years. Methods and terminology for
critical analysis of French style; reading of appropriate texts and
writing of exercises.

434: PROSEMINAR. [3]
Prerequisite: three years of college French or equivalent. Intended
mainly for French majors. Conducted as a discussion group with
emphasis on selected topics and individual problems.

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 Com-
mitee 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 pre-
pared 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

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.

Completion of twenty-seven hours of work in German courses beyond the 255-level is required for the major. It is recommended that the major also complete one or both of the following related courses: English 391 and History 314. To major in German, a student should have at least a "C" average in previous German courses.

**SAMPLE SCHEDULE FOR GERMAN MAJORS***

<table>
<thead>
<tr>
<th>First Semester</th>
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<td>German 151</td>
<td>German 152</td>
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<td>Natural Science</td>
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<td>Social or Behavioral Science</td>
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<th>Third Semester</th>
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<td>German 251</td>
<td>German 254</td>
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<tr>
<td>Mathematics</td>
<td>German 252</td>
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<td>English Lit</td>
<td>English Lit</td>
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<td>Non-Western Culture</td>
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<td>Humanities</td>
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<td>German 312</td>
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<td>German 351</td>
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<tr>
<td>German 361</td>
<td>German 362</td>
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<tr>
<td>(Elective) English 351</td>
<td>(Elective) English 352</td>
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<tr>
<td>(Elective) History 314</td>
<td>(Elective) Philosophy 232</td>
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<td>German 405</td>
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<td>German 409</td>
<td>German 420</td>
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<td>German 425</td>
<td>German 426</td>
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* See Introduction, page 52.
GERMAN COURSES

151-152: ELEMENTARY GERMAN. [4-4] Intensive introduction to German, including basic grammar, reading, aural training and the development of oral skills. *Four classroom hours, two laboratory hours per week.*

153: REVIEW OF ELEMENTARY GERMAN. [4] An intensive review of the grammar, syntax and pronunciation taught in German 151-152; designed for students who have had two years of secondary school German but whose level of proficiency does not qualify them for German 251. *Four classroom hours, two laboratory hours per week. Students may not receive credit for both 151-152 and 153.*

251: INTERMEDIATE GERMAN. [4] *Prerequisite: German 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. *Four classroom hours, two laboratory hours per week.*

252 to 255: Application of the language skills acquired in German 151-152 and 251, in one or more of the following subject areas, which may be studied singly, concurrently, or in any order.

252: GERMAN CONVERSATION AND COMPOSITION. [3] *Prerequisite: German 251 or equivalent.* Development of oral proficiency and skill in writing through conversation and composition on topics related to the practical aspects of everyday life.

253: SCIENTIFIC GERMAN. [3] *Prerequisite: German 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: German 251 or equivalent.* Selected works of major German writers of the modern era are read and discussed. *Prerequisite for all German courses in the major program.*

255: MASTERPIECES OF GERMAN LITERATURE. [3] *Prerequisite: German 251 or equivalent.* A course for non-majors, providing study of selected literary works from 1800 to the pres-
ent (Goethe, Heine, Kafka, Mann, Hesse, Brecht, Dürenmatt). Works will be read in the original and discussed in English.

311: ADVANCED GERMAN GRAMMAR. [3]
Prerequisite: German 254 or permission of instructor. A systematic approach to the grammatical structure of German at an advanced level will be presented. The theoretical knowledge will be applied in closely guided and supervised written and oral exercises.

312: PRACTICAL STYLISTICS. [3]
Prerequisite: German 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: German 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 a major German writer (e.g., Hesse, Kafka, Grass, Frisch) in translation, with all course work in English. The writer 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 German.

351, 352: GERMAN LITERATURE FROM ITS BEGINNINGS TO 1750. [3, 3]
Prerequisite: German 254 or permission of instructor. German 351: early German literature from the heroic saga to the decline of the Middle Ages, with emphasis on the courtly epics and the lyrics of Walther von der Vogelweide. German 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: German 254 or permission of instructor. German 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. German 362 studies the younger Romantic writers Arnim, Brentano, Eichendorff and E.T.A. Hoffmann, as well as their collections of folk songs and tales.
Prerequisite: German 254 or permission of instructor. Study of the literature of Enlightenment, Storm and Stress, and Classicism. Emphasis in the first semester is on works of Lessing, Herder and the younger Goethe; the second semester is a study of Goethe’s later works and the major writings of Schiller and Holderlin.

409: GERMAN LITERATURE FROM THE END OF ROMANTICISM TO 1880. [3]
Prerequisite: German 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.

411, 412: GERMAN LITERATURE SINCE 1880. [3, 3]
Prerequisite: German 254 or permission of instructor. A study of the major literary movements since 1880. German 411 examines Naturalism, Impressionism, the works of the fin de siecle writers, and Expressionism. German 412 presents the literary trends since 1925, including the work of Thomas Mann, Brecht, Hesse, Boll, Celan, Eich, Grass, Frisch and Durrenmatt.

420: LINGUISTICS OF MODERN GERMAN. [3]
Prerequisite: German 254 or permission of instructor. A study of the German language based on the principles of descriptive linguistics. The course includes a brief outline of the development of modern German and an analysis of its phonology, morphology and syntax. Particularly valuable to the student who intends to teach or undertake graduate study in German.

425, 426: INDEPENDENT STUDY. [3, 3]
Prerequisite: three years of college German or the equivalent, and permission of the department chairman. Research and analysis of an individually selected problem in literary criticism or linguistics.

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.

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LATIN COURSES

101-102: ELEMENTARY LATIN. [3-3]
Offered 1973-74. 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.

201-202: INTERMEDIATE LATIN. [3-3]
Offered 1974-75. Prerequisite: Latin 101-102 or equivalent. intensive review of basic grammar; introduction to more difficult grammatical constructions and patterns of usage; continued development of reading proficiency; study of the political and cultural background of Latin authors. Three classroom hours and one laboratory hour per week.

PORTUGUESE COURSES

151-152: ELEMENTARY PORTUGUESE. [4-4]
Intensive introduction to Portuguese, including basic grammar, reading, aural training and the development of oral skills. Four classroom hours, two laboratory hours per week.

251: INTERMEDIATE PORTUGUESE. [4]
Prerequisite: Portuguese 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. Four classroom hours, two laboratory hours per week.

RUSSIAN COURSES

151-152: ELEMENTARY RUSSIAN. [4-4]
Intensive introduction to Russian, including basic grammar, reading, aural training and the development of oral skills. Four classroom hours, two laboratory hours per week.

251: INTERMEDIATE RUSSIAN. [4]
Prerequisite: Russian 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. Four classroom hours, two laboratory hours per week.

252: RUSSIAN CONVERSATION AND COMPOSITION. [3]
Prerequisite: Russian 251 or permission of the instructor. 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: RUSSIAN CIVILIZATION. [3]
Prerequisite: Permission of the instructor. Introduction to the civilization and culture of Russia and the Soviet Union. In addition to reading and lectures the course will include films, slides and music. All lectures, classroom discussions and reading assignments will be in English.

254: READINGS IN RUSSIAN LITERATURE. [3]
Prerequisite: Russian 251 or permission of the instructor. Readings of Russian literary works in the original language with all lectures, discussions and examinations in English.

SPANISH

REQUIREMENTS FOR THE MAJOR

The degree program in Spanish prepares the major to teach Spanish 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 258-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: English 203, 204 (Western Literary Masterpieces), English 391 (General Linguistics), History 361, 362 (Latin-American History), and History 443 (History of Spain and Portugal).

SAMPLE SCHEDULE FOR SPANISH MAJORS*

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<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td>Spanish 151</td>
<td>Spanish 152</td>
</tr>
<tr>
<td>English 101</td>
<td>English 102</td>
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<tr>
<td>Behavioral Science</td>
<td>Behavioral Science</td>
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* See Introduction, page 52.
SPANISH COURSES

151-152: ELEMENTARY SPANISH. [4-4]
Intensive introduction to Spanish, including basic grammar, reading, aural training and the development of oral skills. Four classroom hours, two laboratory hours per week.

An intensive review of the grammar, syntax and pronunciation taught in Spanish 151-152; designed for students who have had two years of secondary school Spanish but whose proficiency does not qualify them for Spanish 251. Students may not receive credit for both Spanish 151-152 and 153. Four classroom hours, two laboratory hours per week.

251: INTERMEDIATE SPANISH. [4]
Prerequisite: Spanish 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. Four classroom hours, two laboratory hours per week.

252 to 258. Application of the language skills acquired in Spanish 151-152 and 251, in one or more of the following areas, which may be studied concurrently or in any order.
252: SPANISH CONVERSATION AND COMPOSITION. [3]
Prerequisite: Spanish 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: Spanish 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 CIVILIZATION. [3]
Prerequisite: Spanish 251 or equivalent. An introduction to the civilization and culture of Spain; in addition to reading, 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: Spanish 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: Spanish 251 or equivalent. Masterpieces of Spanish literature providing insight into 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: Spanish 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: Spanish 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 the non-major. Readings in Spanish with class discussion, tests and examinations in English.

300: SPANISH CIVILIZATION AND CULTURE. [3]
Prerequisite: fifteen 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.
100 SPANISH

301: ADVANCED GRAMMAR AND SYNTAX. [3]
Prerequisite: fifteen 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: Spanish 252 or permission of the instructor. These courses are structured to emphasize development of the skills required both to speak and to write Spanish correctly. They are required courses in the Spanish major program. They may be taken concurrently with Spanish 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: Fifteen semester-hours of Spanish or permission of the 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. These courses are taught entirely in Spanish.

307, 308: LATIN AMERICAN LITERATURE. [3, 3]
Prerequisite: Fifteen semester-hours of Spanish or permission of the 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. Spanish 307 studies the literature of Spanish American countries from colonial times to the twentieth century; Spanish 308 is a study of twentieth century literature. Collateral readings. Recommended for Spanish majors.

309, 310: LITERATURE OF THE GOLDEN AGE. [3, 3]
Prerequisite: Spanish 303, 304 or permission of the instructor. Advanced study of major literary works of the Spanish Golden Age (1517-1680), with emphasis on the works of Cervantes, Lope de Vega, Tirso de Molina, Ruiz de Alarcon, Quevedo and Calderon.

313, 314: SPANISH LITERATURE OF THE NINETEENTH CENTURY. [3, 3]
Prerequisite: Spanish 303, 304 or permission of the instructor. A study of the major works of nineteenth-century Spanish literature. The first semester covers works of such authors as Duque de Rivas, Zorrilla, Alarcon and Galdos; the second semester studies the works of such figures as Becquer, Clarin, Blasco Ibanez and Ruben Dario.
315: LATIN AMERICAN CIVILIZATION AND CULTURE. [3]
Prerequisite: Fifteen semester-hours of Spanish or permission of the instructor. Introductory study of Latin American civilization and culture, with supporting study of the history of the continent. The course is conducted in Spanish.

320: LINGUISTICS OF THE SPANISH LANGUAGE. [3]
Prerequisites: 303, 304, and 305, 306, or permission of the instructor.
A general introduction to linguistics; a brief study of the evolution of Spanish from its Latin origins to contemporary speech, and a brief review of morphology, syntax and phonology, with emphasis on the latter. This course is invaluable to Spanish majors planning to teach Spanish or contemplating graduate work.

325: MAJOR SPANISH WRITERS. [3]
Designed for the non-major student, the course provides study of the works of a major Hispanic writer (e.g., García Lorca, Cela, Unamuno, Borges) in translation, with all course work in English. The writer 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.

400: STYLISTICS. [3]
Prerequisites: Spanish 303, 304 and at least twelve 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: LATIN AMERICAN POETRY. [3]
Prerequisite: Spanish 303, 304 and 307, 308 or permission of the instructor. Study of the most representative lyric poets of Latin America from the colonial period to the present. Special attention will be given to the poetry of Martí, Darío, Lugnoes, Vallejo, Huidobro, Neruda, Mistral, Vilaurrutia, and Paz.

403, 404: CONTEMPORARY SPANISH LITERATURE. [3, 3]
Prerequisites: 303, 304 and 305, 306, or permission of the instructor. The first semester examines in depth the main authors of the “generation of ’98” including: Unamuno, Valle-Inclán, Baroja, Azorín, Benavente, and Antonio Machado. The second semester includes an analysis of contemporary post-Civil War authors: Cela, Laforet, Delibes, Buero Vallejo, Sastre, Sanchez Ferlosio, García, Lorca, Jimenez, Guilleón Aleixandre, and Salinas. The various genres are studied in the works of these leading writers.
102 SPANISH

407, 408: LATIN AMERICAN NOVEL AND SHORT STORY. [3, 3]
Prerequisite: Spanish 303, 304 and 307, 308 or permission of the instructor. The evolution and development of the novel and short story in Latin America, from colonial times to the present. A panoramic study, including the most representative works, will be completed. Collateral readings will be required.

410: CERVANTES. [3]
Prerequisite: Spanish 303, 304 or permission of the instructor. A study of the major works of Cervantes, with emphasis on Don Quixote.

412: SPECIAL STUDIES IN LITERATURE. [3]
Prerequisites: Spanish 303, 304 and 307, 308 or permission of the instructor. Special studies in the 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 in advance.

415: READINGS IN MEDIEVAL SPANISH LITERATURE. [3]
Prerequisite: Spanish 303, 304 and 305, 306 or permission of the instructor. A study of the major works of medieval Spanish literature, especially of El Cid, and the works of Berceo, Ruiz, Manuel, Santillana, Manrique, and Rojas.

425, 426: INDEPENDENT STUDY. [3, 3]
Prerequisite: Permission of Department Chairman and Instructor. Open only to Spanish majors with senior standing. Intensive study of a selected topic in literature or linguistics by an individual student in close consultation with an instructor. The student will produce at least one term paper on an important aspect of his readings and research.

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.
# Department of History

Professor Cassara *(Chairman)*  
Associate Professors Boothe, Moseley, Pugh, Spence  
Assistant Professors Gleissner, Hawkes, Jensen, Lytton, Pacheco, Rinehart, Saeed, Soder, Spindler  
Instructor Cohen, M.  
Lecturers Deshmukh, King, Nwulia, Spector

## Requirements for the Major

Candidates for the Bachelor of Arts degree in history shall present, in addition to the general requirements, thirty-three hours of history and must include at least three hours of historiography or senior seminar. At least eighteen hours of the total presented for the degree must consist of work in the 300 or 400 series. Not more than forty-two hours may be counted toward completion of the program, but hours of history in excess of that number may be presented as elective hours to be counted toward graduation. The history major should plan a diversified program of varied historical fields (e.g., U.S., Europe, Latin America, Asia).

## Sample Program B.A. in History*

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<thead>
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<th>First Semester</th>
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* * See Introduction, page 52.
**Fifth Semester**

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### 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 sources and problems of world leadership and power.

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 the African peoples from earliest times to the emergence of new African states from colonial domination. Particular attention is paid to Africa south of the Sahara, its unique and diverse cultural traditions, its relations with and effect on the rest of the world, as well as the contribution of the African heritage to the United States.

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.

301: HISTORY OF THE ANCIENT WORLD. [3]
Prerequisite: Six hours of history. A survey of the history of classical Greece and Rome, with particular attention to their cultural traditions, spiritual values, intellectual development, and political structures; early Christianity, its roots in Judaism and Greek thought, and growth within the context of the Roman Empire; the decay of the Western Empire; the early history of the Byzantine State.

302: EARLY MEDIEVAL EUROPE. [3]
Prerequisite: Six hours of history. European history from the fourth to the twelfth centuries: The decay of Roman authority and the emergence of Germanic power in the West; the role of the Church in early medieval society, the patristic tradition, the growth of the Papacy; the influence of Islam and the Byzantine Empire; the Carolingians and the “New Europe”; development of feudalism; Empire and Papacy. Emphasis on papal and imperial ideologies.

303: THE HIGH MIDDLE AGES. [3]
Prerequisite: Six hours of history. The High Middle Ages through the fifteenth century: The “Gothic World” of the twelfth and thirteenth centuries; the Crusades and the expansion of Europe; the triumph of the Papacy; growth of the secular state; doubt, plague, war, and the breakdown of the medieval consensus. Emphasis on cultural, social, and intellectual history and the development of political institutions.

306: RENAISSANCE AND REFORMATION. [3]
Prerequisite: Six hours of history. The history of late medieval and Renaissance Italy with particular attention to literature, art, and philosophy. Europe in the late fifteenth and sixteenth centuries; humanist reformation, Protestant Reformation, and Counter-Reformation.
307: EUROPE FROM LOUIS XIV TO THE CONGRESS OF VIENNA. [3]

Prerequisite: Six hours of history. The history of western Europe from 1648 to 1815: transition of political, economic, and social institutions to their modern forms; secularized products of religious revolt; expansion of European influence; scientific and philosophical revolutions; the Enlightenment; the French Revolution and Napoleonic Wars.

308: NINETEENTH CENTURY EUROPE. [3]

Prerequisite: Six hours of history. The 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 Irridentism; Imperialism; the failure of diplomacy and the collapse of the European state system.

309: HISTORY OF EUROPE SINCE 1914. [3]

Prerequisite: Six hours of history. 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. 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. 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 the Revolution.

324: ENGLAND FROM THE REVOLUTION OF 1688. [3]

Prerequisite: Six hours of history. 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. 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. An examination of the 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. 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. The history of the exploration, settlement, and expansion of the frontier, with emphasis on its influence upon cultural and political institutions.

343, 344: DIPLOMATIC HISTORY OF THE UNITED STATES. [3, 3]
Prerequisite: Six hours of history. A survey of American 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 begins at 1914.

348: AMERICAN ECONOMIC HISTORY. [3]
Prerequisite: Six hours of history. 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. The history of the 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. 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.

Prerequisite: Six hours of history. 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.

Prerequisite: Six hours of history. The development of an independent Latin America since 1825. Emphasis is on the interactions between the United States and Latin America.

363: THE HISTORY OF ARGENTINA, BRAZIL, AND CHILE. [3]
Prerequisite: History 361, or permission of instructor. An intensive study of the evolution of Argentina, Brazil, and Chile from the Colonial Period to the present with an emphasis upon the changing social, political, and economic conditions.

370: THE DIPLOMATIC HISTORY OF LATIN AMERICA. [3]
Prerequisite: History 362 or permission of instructor. A careful treatment of political, social and cultural relations of the Latin American states with each other, the United States, Europe and the papacy from independence to the present. Emphasis will be placed upon the operation of a system of international power politics in Latin America.

401: COLONIAL AMERICA. [3]
Prerequisite: Six hours of history. An intensive study of colonial American history from its European origins through the Revolutionary War.

411: CULTURAL AND INTELLECTUAL HISTORY OF THE UNITED STATES: 1600-1865. [3]
Prerequisite: Six hours of history. An inquiry into the cultural and intellectual currents in America 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; revivalism 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. American thought and society from 1865 to the present. The effects of industrialization upon basic American institutions; development of a business “credo”; the growth of radical thought in economics, politics and religion; changes in the social structure; the increasing power and influence of the state.

421: INTELLECTUAL AND CULTURAL HISTORY OF EUROPE, 1715-1848. [3]
Prerequisite: Six hours of history. The Enlightenment in Europe and its debt to seventeenth-century scientific thought. The reaction to the Enlightenment during and following the French Revolution, the Sturm and Drang literary movement in Germany, and Romanticism in England, France, and Germany. Parallel developments in political thought, science, philosophy, and the arts.

422: INTELLECTUAL AND CULTURAL HISTORY OF EUROPE, 1848 TO THE PRESENT. [3]
Prerequisite: Six hours of history. The artistic, literary, political reaction to the revolutions of 1848. The development of Scientific Socialism and the evolutionary theories in science. A discussion of irrationalist philosophies, sociology, psychology, and anthropology. Relativism. Fin-de-siecle Europe and the rise of Expressionism, Cubism, and non-objective painting. Twentieth-century Existentialism.

433: THE UNITED STATES IN THE TWENTIETH CENTURY. [3]
Prerequisite: Six hours of history or permission of instructor. An intensive study of the United States and its role in world affairs since World War I: post-war adjustment, false prosperity of the twenties, the great crash and depression, the New Deal, farm and labor problems; isolation and neutrality, World War II, the Cold War and containment, Korean War and problems associated with the Vietnam conflict.

438: SPANISH BORDERLANDS. [3]
Prerequisite: Six hours of history. 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 origins of the present Mexican-American minority.

441: FRANCE SINCE THE REVOLUTION. [3]
Prerequisite: Six hours of history. 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. Development of Spain and Portugal from prehistoric times to the present, noting particularly factors related to their former empires in America.

453: HISTORY OF MEXICO. [3]
Prerequisite: Six hours of history or permission of instructor. Intensive study of Mexican history from the pre-Columbian era to the present, with emphasis upon the national period.

464: MODERN INDIA AND PAKISTAN. [3]
Prerequisite: Six hours of history. The political history of the Indo-Pakistan subcontinent from mid-eighteenth century to the present. Background of the earlier cultures of the Hindus and of the Muslims will be presented as prelude to developments in the modern period.

471: MODERN CHINA. [3]
Prerequisite: History 241 or 242. China during the Ch’ing dynasty and the Republican era as the Confucian tradition broke down under the impact of Western penetration, giving rise to a struggle among various formulae (of which the Marxist-Leninist was ultimately successful) for China’s salvation.

473: MODERN JAPAN. [3]
Prerequisite: History 241 or 242. Japan from the Meiji restoration in 1868 to the Second World War, with particular emphasis on Japan’s uniquely successful modernization in the face of the challenge posed by the West following the opening of the country by Commodore Perry.

491, 492: SENIOR SEMINAR IN HISTORY. [3, 3]
Prerequisite: 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.
493, 494: DIRECTED READINGS IN HISTORY. [3, 3]
Prerequisite: Open only to senior majors in history with consent of instructor. A student may not present more than six 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.

497: AMERICAN HISTORIOGRAPHY. [3]
Prerequisite: Open only to senior majors in history with consent of the instructor. An examination of the methods used in the study and writing of history. Research techniques. Reading of the works of major American historians from the Colonial Period to the present.

498: EUROPEAN HISTORIOGRAPHY. [3]
Prerequisite: Open only to senior majors in history with consent of the instructor. An examination of the methods used in the study and writing of history. Research techniques. Reading of the works of major European historians from Herodotus to the present.
ART COURSES

101: ART APPRECIATION. [3]
A general introduction to the principles of aesthetics in art by means of a study in painting, sculpture and architecture; chronological, prehistoric times to the present, or ideational approach varying with the instructor.

104: DRAWING. [3, 3]
Elementary 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.

An introductory course in the fundamentals of two-dimensional design. Through an investigation of materials and methods employed in the visual arts, the student gains an understanding of “structural possibilities” and those means which will best serve his ideas. Course centers on combined uses of the elements of design: Line, Value, Color, and Texture. Six hours per week.

201, 202: PAINTING. [3, 3]
A basic course in the fundamentals of painting. Structural approach in medias of oil, acrylic and tempera. Six hours per week.

205, 206: HISTORY OF 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.

207: INTRODUCTION TO COMPARATIVE ARTS. [3]
An interdisciplinary approach to various themes within the history of western art.

215, 216: BEGINNING SCULPTURE. [3]
Prerequisite: Art 103 and 104, or permission of the instructor. A basic course in the fundamentals of creating three-dimensional forms using water-base clay. Six hours per week.
321, 322. HISTORY OF ANCIENT ART. [3]
A broad, generic course in the aesthetics and art history of ancient cultures, including nonwestern cultures.

331, 332: HISTORY OF MODERN ART. [3, 3]
An examination of the nineteenth century art styles, followed by an in-depth study of the aesthetics and history of art since 1900. Such styles as Expressionism, Cubism, Dadaism, Surrealism, Modern Primitivism and others will be covered.

MUSIC

REQUIREMENTS FOR THE MAJOR

The major program in music prepares students for graduate study in music and music literature, and for research and professional work in musical activities. Entrance to the program is by audition only.

In addition to the general requirements for the Bachelor of Arts degree, music majors must complete a minimum of 42 hours in music. Required courses in music are as follows:

Harmony .......................................................... 12
Sight Singing and Ear Training .................................. 4
Historical, Theoretical, and Analytical Study of Music ...... 9*
Class Piano ............................................................ 2
Major Instrument or Voice (Private Music Lessons) ......... 8
Ensemble .............................................................. 7

Total ..................................................................... 42

SAMPLE SCHEDULE FOR MUSIC MAJORS*+

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
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<tbody>
<tr>
<td>English 101</td>
<td>English 102</td>
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<tr>
<td>Foreign Language 151</td>
<td>Foreign Language 152</td>
</tr>
<tr>
<td>Harmony I</td>
<td>Harmony II</td>
</tr>
<tr>
<td>Sight Singing &amp; Ear Training I</td>
<td>Sight Singing &amp; Ear Training II</td>
</tr>
<tr>
<td>Class Piano I</td>
<td>Class Piano II</td>
</tr>
<tr>
<td>Major Instrument</td>
<td>Major Instrument</td>
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<tr>
<td>(Pvt. Music Instruc.)</td>
<td>(Pvt. Music Instruc.)</td>
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<tr>
<td>Ensemble</td>
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* The first 3 hours in this sequence (Music 335) may be applied toward the non-Western Proviso under General Requirements. Music 231 (Survey of World Music Literature) also meets the non-Western requirement.
+ See Introduction, page 52.
### Third Semester

<table>
<thead>
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<td>Foreign Language 251</td>
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<td>Natural Science</td>
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<tr>
<td>Harmony III</td>
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<td>Ensemble</td>
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### Fourth Semester

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<td>Natural Science</td>
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<tr>
<td>Survey of World Music Literature</td>
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<tr>
<td>Harmony IV</td>
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<tr>
<td>Keyboard Harmony</td>
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### Fifth Semester

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<tr>
<td>Elective</td>
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<tr>
<td>Humanities Elective</td>
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<tr>
<td>Historical, Theoretical, &amp; Analytical Study of Music I</td>
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### Sixth Semester

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<td>Social Science</td>
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<tr>
<td>Humanities Elective</td>
<td>3</td>
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<tr>
<td>Historical, Theoretical, &amp; Analytical Study of Music II</td>
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### Seventh Semester

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<td>Social Science</td>
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</tr>
<tr>
<td>Hist., Theo., &amp; Anal. Study of Music III</td>
<td>3</td>
</tr>
<tr>
<td>Major Instrument (Pvt. Music Instr.)</td>
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<td>Ensemble</td>
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<tr>
<td>Electives</td>
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### Eighth Semester

<table>
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</thead>
<tbody>
<tr>
<td>Hist., Theo., &amp; Anal. Study of Music IV</td>
<td>3</td>
</tr>
<tr>
<td>Major Instrument (Pvt. Music Instr.)</td>
<td>1</td>
</tr>
<tr>
<td>Electives</td>
<td>10</td>
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<td><strong>14</strong></td>
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</tbody>
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### MUSIC COURSES

101: MUSIC APPRECIATION I. [3]
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

http://catalog.gmu.edu
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. For non-music majors only.

102: MUSIC APPRECIATION II. [3] 
Prerequisite: Music 101 or permission of the instructor. 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. For non-music majors only.

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. Melodic and harmonic interval dictation. Three hours per week.

114: SIGHT SINGING AND EAR TRAINING II. [2] 
Prerequisite: Music 113 or permission of the instructor. A continuation of Sight Singing and Ear Training I. Modulation, various modes. Rhythmic and melodic 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: Music 115 or permission of the 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.

171: CLASS PIANO I. [1] 
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. For music majors only.

172: CLASS PIANO II. [1] 
Prerequisite: Music 171 or permission of the instructor. The study of the piano keyboard as it is related to intermediate song and combined in various musical forms. A brief survey of Medieval and idiomatic piano literature. For music majors only.
173, 174, 273, 274, 373, 374, 473, 474: PRIVATE MUSIC INSTRUCTION. [1, 1, 1, 1, 1, 1, 1, 1]

175, 176: PRIVATE MUSIC INSTRUCTION. [2, 2]
Prerequisite: All students must pass an audition before registering for Private Music Instruction. To earn one credit per semester, a student takes 15 one-half hour private music lessons; to earn two credits per semester, a student takes 15 one-hour private music lessons. Each student will be graded on his progress during the semester. For each credit hour, one hour of practice per day is expected. Instruction is offered on the following:

<table>
<thead>
<tr>
<th>Flute</th>
<th>Trombone</th>
<th>Percussion</th>
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</thead>
<tbody>
<tr>
<td>Oboe</td>
<td>Baritone horn</td>
<td>Piano</td>
</tr>
<tr>
<td>Clarinet</td>
<td>Tuba</td>
<td>Organ</td>
</tr>
<tr>
<td>Bassoon</td>
<td>Violin</td>
<td>Harp</td>
</tr>
<tr>
<td>Saxophone</td>
<td>Viola</td>
<td>Classic guitar</td>
</tr>
<tr>
<td>French Horn</td>
<td>Cello</td>
<td>Voice</td>
</tr>
<tr>
<td>Trumpet</td>
<td>String bass</td>
<td></td>
</tr>
</tbody>
</table>

The Private Music Instruction Fee applies (Page 26). Students who are registering for Private Music Instruction for the first time should register for Music 173 or 175 and then continue with the numerical sequence.

181, 182, 281, 282, 381, 382, 481, 482: UNIVERSITY CHORUS. [1, 1, 1, 1, 1, 1, 1, 1]
Performance of works from the choral repertoire. Public concerts will be given. Regardless of class standing (freshman, sophomore, etc.), students who are registering for University Chorus for the first time should register for Music 181 and then continue with the numerical sequence. Three hours per week.

183, 184, 283, 284, 383, 384, 483, 484: CONCERT BAND. [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. Regardless of class standing (freshman, sophomore, etc.), students who are registering for Concert Band for the first time should register for Music 183 and then continue with the numerical sequence. Three hours per week.

187, 188: SYMPHONY ORCHESTRA. [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. Regardless of class standing (freshman, sophomore, etc.), students who are registering
for Symphony Orchestra for the first time should register for Music 187 and then continue with the numerical sequence. Three hours per week.

203: **FOLK AND TRADITIONAL MUSIC OF THE WORLD.** [3]
A study of the musical structure and cultural setting of folk music among diverse peoples, with an introduction to the traditional art music of oriental countries. *For non-music majors only.*

204: **INTRODUCTION TO TWENTIETH CENTURY MUSIC.** [3]
*Prerequisite: One course in music or permission of the instructor.* A survey of the various styles found in twentieth century music. Tonal, atonal, serial and experimental music, as well as the representative schools of jazz will be studied. *For non-music majors only.*

205: **MUSIC IN THE UNITED STATES.** [3]
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. *For non-music majors only.*

206: **LATIN AMERICAN MUSIC.** [3]
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. *For non-music majors only.*

215: **HARMONY III.** [3]
*Prerequisite: Music 116 or permission of the instructor.* A study of chromatic chords. Four-part chromatic writing and analysis of nineteenth century compositions.

216: **HARMONY IV.** [2]
*Prerequisite: Music 215 or permission of the instructor.* A continuation of the study of chromatic harmony as it applies to the classical forms.

218: **KEYBOARD HARMONY.** [1]
*Prerequisite: Music 172 and 215.* A study of techniques of harmonization at the piano keyboard. *Two hours per week. For music majors only.*

231: **SURVEY OF WORLD MUSIC LITERATURE.** [3]
*Prerequisite: Music 115 or permission of the instructor.* A survey of music literature in the four major theoretical systems of the
world with an emphasis on the influences of non-Western systems on Western music.

277: CLASS VOICE I. [1]
A study of the use of the human voice in artistic singing. Practical application of basic principles will be emphasized. Two hours per week.

278: CLASS VOICE II. [1]
A continuation of voice study begun in Music 277, with emphasis on artistic singing in several styles. Two hours per week.

319: CLASS COMPOSITION I. [3]
Prerequisite: Music 116 or permission of the instructor. Students will compose original compositions using the smaller forms of music. Compositional techniques will be studied through the analysis of works by major composers. A highly individualized course due to the creative process.

320: CLASS COMPOSITION II. [3]
Prerequisite: Music 319 or permission of the instructor. A continuation of Class Composition I. Emphasis is placed on the larger forms of music, on larger ensembles, and on twentieth-century techniques.

335: HISTORICAL, THEORETICAL, AND ANALYTICAL STUDY OF MUSIC I. [3]
Prerequisite: Music 231 or permission of the instructor. A survey of the development of music 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 the 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: Music 231 or permission of the 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.

385, 386, 485, 486: COLLEGIUM MUSICUM. [1, 1, 1, 1]
Prerequisite: Successful completion of an audition before the instructor. 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. Three hours per week. Students entering for the first time should register for Music 385 and then continue with the numerical sequence.

391: CONDUCTING I. [2]
Prerequisites: Music 172, 216 and 218 or permission of the instructor.
A study of basic techniques of conducting a musical ensemble. Three hours per week.

435: HISTORICAL, THEORETICAL, AND ANALYTICAL STUDY OF MUSIC III. [3]
Prerequisite: Music 231 or permission of the 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: Music 231 or permission of the 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.

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.

PHILOSOPHY

REQUIREMENTS FOR THE MAJOR

The major program in philosophy encourages students to develop a broad understanding of the basic areas of philosophic inquiry and provides opportunities for in-depth study in areas or topics of special interest. While course offerings are listed below in numerical sequence, they may be identified with the areas and topics by the second digit of the course numbers as follows:

-1--: Philosophy of Man
-3--: History of Philosophy
-5--: Theories of Value and Action
-7--: Theories of Being and Knowledge
-9--: Seminars and Independent Study
In addition to the general requirements for the Bachelor of Arts degree, philosophy majors must complete at least thirty additional semester-hours in philosophy including: History of Western Philosophy (both semesters), the Seminar in Philosophical Problems or the Seminar in Philosophical Figures, Independent Study, and six additional hours at the 300 or 400 level; at least three semester-hours must fall within each of the first four areas listed above.

**SAMPLE SCHEDULE FOR PHILOSOPHY MAJORS**

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<thead>
<tr>
<th>First Semester</th>
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<tr>
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* * See Introduction, page 52.
PHILOSOPHY COURSES

111: MAN AND SOCIETY. [3]
Reading and informal discussion of Plato’s Republic and the writings of several recent thinkers who deal with the problems of society, government, and the economy in their relation to human welfare in general.

151: 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.

171: THEORY OF KNOWLEDGE. [3]
Discussion of basic problems concerning the nature of knowledge, with special study of the relation of knowledge to perception, to belief, and to language.

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.

213: PHILOSOPHY OF RELIGION. [3]
Prerequisite: Sophomore standing or higher, or consent of the instructor. A study of classical appeals to philosophy in support of belief in God’s existence (Philo, Augustine, Anselm, Aquinas, Descartes); the fideism 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.

215: PHILOSOPHY OF HISTORY. [3]
Prerequisite: At least sophomore standing or consent of instructor. 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 un-historical attitude of human consciousness; and 2) to investigate the various forms of historical consciousness by studying the Greek, Biblical and Secular interpretations of history.

231, 232: HISTORY OF WESTERN PHILOSOPHY. [3, 3]
Prerequisite: Sophomore standing or higher, or consent of the instructor. A survey of leading thinkers from early Greek philosophy to the twentieth century. First semester: the Pre-Socratics, Plato,
Aristotle, Augustine, Aquinas, and others. Second semester: Descartes, Spinoza, Leibniz, Locke, Berkeley, Hume, Kant, Hegel, Bergson, Whitehead, the Pragmatists, and others.

252: MODERN ETHICS. [3]
Prerequisite: Sophomore standing or higher, or consent of the instructor. 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.

253: CONTEMPORARY RELIGIOUS ETHICS. [3]
Prerequisite: Sophomore standing or higher, or consent of the 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 non-religious 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 Religion 271 may not take this course.

271: METAPHYSICS. [3]
Prerequisite: Sophomore standing or higher, or consent of the instructor. 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.

273: INTRODUCTION TO SYMBOLIC LOGIC. [3]
Prerequisite: At least Sophomore standing or consent of the instructor. 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).

331: PHILOSOPHY IN THE UNITED STATES. [3]
Prerequisite: Junior or senior standing and six hours in philosophy, or consent of the instructor. Selected studies of writers, movements, and topics from the full range of American philosophy. Readings from the works of such authors as Emerson, Thoreau, Peirce, James, Royce, Santayana, Dewey, Whitehead, Mead and others; consideration of the contributions of American writers to philosophical inquiry in such classical fields as metaphysics, ethics and epistemology, to more recent developments such as pragmatism, and generally to
social and political philosophy, to logic and the philosophy of language, and to the philosophy of science.

332: TWENTIETH CENTURY ANALYTIC PHILOSOPHY. [3]
Prerequisite: 6 credits in Philosophy and Junior standing (at least), or consent of the instructor. An examination of twentieth-century analytic philosophy. Figures and movements covered will include Moore, Russell, Wittgenstein, logical positivism, and ordinary language philosophy.

333: CONTEMPORARY CONTINENTAL THOUGHT: EXISTENTIALISM AND PHENOMENOLOGY. [3]
Prerequisite: 6 credits in Philosophy and Junior standing or consent of the instructor. A study of phenomenological and existential thought which clarifies phenomenology as the method of existentialism and which shows existential thought to be rebelling against, though rooted in, traditional philosophical thought.

334: LATIN AMERICAN THOUGHT. [3]
Prerequisite: Junior or senior standing and six hours in philosophy, or consent of the instructor. 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 philosophers of 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.

Prerequisite: Junior or senior standing and six hours in philosophy, or consent of the instructor. An 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.

356: THE PHILOSOPHY OF ART. [3]
Prerequisite: 6 credits in Philosophy and Junior standing, or consent of the instructor. 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?
371: INTRODUCTION TO PHILOSOPHY OF SCIENCE. [3]  
Prerequisite: At least Junior standing, or consent of the instructor. 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: Junior or senior standing and six hours in philosophy, or consent of the instructor. 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 inter-relationship 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.

413: ALTERNATIVE FUTURES FOR SCIENCE AND SOCIETY. [3]  
Prerequisite: Junior or senior standing and nine hours in philosophy, or consent of the instructor. Philosophical evaluations of human rationality and freedom as applied to the need for more humane roles and institutional settings for science and technology in society. Examination of the views of leading contemporary thinkers on the modes, potential and limits of intellectual and political activity in such areas as international security, population, economic development, the environment, urban life, political institutions, religion, and the arts. Readings from such writers as Bronowski, de Jouvenel, Ellul, Marcuse, Mumford, Polanyi, Toulmin, Weizsaecker and others.

491, 492: PHILOSOPHICAL FIGURES. [3, 3]  
Prerequisite: Junior or senior standing and nine hours in philosophy, or consent of the instructor. A close study of one or several writings of a leading philosopher. Texts to vary annually. Students who are registering for Philosophical Figures for the first time should register for Phil. 491; for the second time, Phil. 492.

493, 494: PHILOSOPHICAL PROBLEMS. [3, 3]  
Prerequisite: Junior or senior standing and nine hours in philosophy, or consent of the instructor. A close study of some important problems (e.g., freedom of the will), with discussion of some leading traditional and modern writings on the subject. Topic to vary annually. Students who are registering for Philosophical Problems for
the first time should register for Phil. 493; for the second time, Phil. 494.

495, 496: INDEPENDENT STUDY. [3, 3]
Prerequisite: Open only to philosophy majors with junior or senior standing and fifteen hours of philosophy. Individual study of some philosophical writer or movement. Student to produce at least one major piece of written work during the semester. Students who are registering for Independent Study for the first time should register for Phil. 495; for the second time, Phil. 496.

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
-3-: Religion and Culture
-5-: Religious Literature
-7-: 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. Students who have taken Religion 236 may not take this course.

211: RELIGIONS OF THE NEAR EAST. [3]

212: RELIGIONS OF THE ORIENT. [3]

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 political-social-economic 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 Religion 376 may not take this course.

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 consent of the 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 Philosophy 253 may not take this course.

332: AMERICAN RELIGION IN SOCIAL THOUGHT AND ACTION. [3]
Prerequisite: Rel. 231 or permission of the instructor. An in-depth study of the churches' involvement in social thought and action. Areas of analysis include: church, state, and freedom; the churches and the nation's wars; slavery, segregation, and racial problems; nineteenth century moral crusades; social sources of denominationalism and church unity; views of radical sects and cults; the economic order and the "social gospel"; social issues in modern America.

334: RELIGION IN THE THEATRE OF ASIA. [3]
Prerequisite: Religion 212, or consent of the 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.

372: DEATH OF GOD THEOLOGY. [3]
Prerequisite: Junior standing and six hours of Religion or Philosophy, or consent of the instructor. An intensive examination of the “Death of God” movement, conducted in a seminar format. The writings of the 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 consent of the 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.
**DEPARTMENT OF MATHEMATICS**

Associate Professors Oppelt (*Chairman*), Cabell, Cole, Draper, Papp, Turner

Assistant Professors Berman, Chambers, Childress, Dorey, Kiley, Saperstone, Seidman, Sennott

**REQUIREMENTS FOR THE MAJOR**

**B.A. Program**

In addition to general degree requirements the following courses are required: Mathematics 115, 116, 215, 216, plus eighteen more hours of which at least fifteen must be numbered above 300.

**SAMPLE SCHEDULE FOR B.A. MATHEMATICS MAJORS***

<table>
<thead>
<tr>
<th>First Semester</th>
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<tbody>
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<tbody>
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<tr>
<td>Natural Science</td>
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<td>Math 216</td>
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<tr>
<td>Natural Science</td>
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<td>Non-Western Culture</td>
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<td>Math 315</td>
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<td>Elective</td>
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<tr>
<th>Sixth Semester</th>
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<tr>
<td>Math 316</td>
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<tr>
<td>Non-Western Culture</td>
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<tr>
<td>Behavioral Science</td>
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<td>Electives</td>
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<td>Math 400 level</td>
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<th>Eighth Semester</th>
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<tr>
<td>Electives</td>
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<td>Math 400 level</td>
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* See Introduction, page 52.
MATHEMATICS 129

B.S. Program

In addition to general degree requirements the following courses are required: Mathematics 115, 116, 215, 216, 315, 316, 321, 322, plus eighteen more hours of which at least twelve must be numbered above 300.

The science requirement may be fulfilled by any one of the following four options:

- Physics 113, 114, 213, 214, 215, 216;
- Chemistry: four semesters excluding Chemistry 103 and 104;
- Biology: four semesters excluding Biology 103 and 104;
- Chemistry 111-112 and Biology 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.

SAMPLE SCHEDULE FOR B.S. MATHEMATICS MAJORS*

<table>
<thead>
<tr>
<th>First Semester</th>
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<tr>
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<td>English 101</td>
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<td>Language 151</td>
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<tr>
<th>Third Semester</th>
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<tbody>
<tr>
<td>Natural Science</td>
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</tr>
<tr>
<td>Math 215</td>
<td>4</td>
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<tr>
<td>English Lit</td>
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<td>Language 251</td>
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<tbody>
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<td>Math 315</td>
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<td>Math 321</td>
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<td>Elective (non-science)</td>
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<tr>
<td>Electives</td>
<td>6</td>
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<tr>
<td><strong>15</strong></td>
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* See Introduction, page 52.
Mathematics 113, 114, 213, 214 are not recommended for mathematics majors. Mathematics 103, 104, 106, 107, 108 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 Mathematics 103, 104, 107, 108 and 261. We advise every liberal arts major to take either Mathematics 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 Mathematics 266, 268, 313, 314, 351, 352, 382, 443, 444, 446, 447.

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 3 hours per week. No college credit is given. Basic algebraic manipulations. Linear Equations and graphing. A study of the properties of Polynomial Logarithmic, exponential, trigonometric functions.

103, 104: FINITE MATHEMATICS. [3, 3] 
Elementary set theory and probability, Matrix algebra, linear programming, Markov Chains and Game theory. Applications.

106: CONCEPTS OF MATHEMATICS. [3] 
Important ideas in mathematics and their development.

107, 108: MATHEMATICS OF MANAGEMENT. [3, 3] 
Linear inequalities and programming, polynomial, exponential and log functions, graphing, probability, matrix algebra, elementary differential and integral calculus, least square approximations.
MATHEMATICS 131

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: Mathematics 116. Real numbers, axiom systems, naive set theory, cardinal and ordinal numbers.

221: NUMBER THEORY. [3]
Prerequisite: Mathematics 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.

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: Mathematics 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, operation research and data processing. The construction and interpretation of models drawn from the Biological, Behavioral and Physical sciences.
132  MATHEMATICS

313, 314:  INTRODUCTION TO APPLIED MATHEMATICS. [3, 3]
Prerequisite: Mathematics 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: Mathematics 216. Elementary topology, metric spaces, limits, continuity, differentiation, integration, and series.

321:  ABSTRACT ALGEBRA. [3]
Prerequisite: Mathematics 215. Theory of groups, rings, fields.

322:  LINEAR ALGEBRA. [3]
Prerequisite: Mathematics 215. Vector spaces, linear independence, bases, linear transformations, matrix algebra, inner product, special topics.

351:  PROBABILITY. [3]
Prerequisite: Mathematics 215. Random variables, probability functions, special distributions, limit theorems.

352:  STATISTICS. [3]
Prerequisite: Mathematics 351. Estimation, decision theory, testing hypothesis, correlation, linear models and design.

382:  INTRODUCTION TO STOCHASTIC PROCESSES. [3]
Prerequisite: Mathematics 315 or Mathematics 313 and Mathematics 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.

411:  FUNCTIONS OF A COMPLEX VARIABLE. [3]
Prerequisite: Mathematics 316. Analytic functions, contour integration, residues, and applications to such topics as integral transforms, generalized functions and boundary value problems.

431:  TOPOLOGY. [3]
Prerequisites: Mathematics 216 and six hours of mathematics at or above the 300 level. Metric spaces, topological spaces, compactness, connectedness.
443, 444: APPLIED MATHEMATICS. [3, 3]
Prerequisite: Mathematics 316, 322, or permission of the instructor.
Mathematical programming: topics in classical optimization, unconstrained search, gradient methods, dynamic programming, linear programming, non-linear programming and integer programming.

446, 447: NUMERICAL ANALYSIS AND DIGITAL COMPUTATION. [3, 3]
Prerequisite: Mathematics 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.
DEPARTMENT OF PHYSICS

Professors Johnston (*Chairman*), Mielczarek
Associate Professors Lankford, Papaconstantopoulos
Assistant Professors Black, Lieb, Welanetz
Lecturers Flinn, Klein, McKinley

REQUIREMENTS FOR THE MAJOR

In addition to the general degree requirements, the B.S. in Physics requires the completion of forty-four semester-hours in the major and twenty-three semester-hours in mathematics. The following physics courses are required for the B.S. degree: Physics 113, 114, 213, 214, 215, 216, 303, 305, 306, 402, 403, 405, 407. The remaining nine credits are to be elected from Physics 408, 410, 414, 302, 207, and 411, with at least five credit hours from the first three courses. In addition to the two year calculus sequence the following courses are required for the B.S. Degree: Physics 311 or Mathematics 313, Physics 312 or Mathematics 314, plus one course in mathematics at the 300 or 400 level.

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 the general degree requirements, the B.A. in Physics requires the completion of thirty-one semester-hours in the major and seventeen semester-hours of mathematics. The following physics courses are required: Physics 113, 114, 213, 214, 215, 216, 303, 305, 306, 402 and either 407 or 302.

SAMPLE SCHEDULE FOR THE B.S. DEGREE IN PHYSICS*

<table>
<thead>
<tr>
<th>First Semester</th>
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<tbody>
<tr>
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<td>Physics 114</td>
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<tr>
<td>Chem 111 or</td>
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<td>Biology 113</td>
<td>Biology 114</td>
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<td>Eng 101</td>
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<td>Elective</td>
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* See Introduction, page 52.
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Physics 213</td>
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<tr>
<td>Math 213</td>
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<td>Eng Lit</td>
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<td>Physics 411</td>
<td>Math Elective</td>
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**PHYSICS COURSES**

101-102: INTRODUCTORY COLLEGE PHYSICS. [4-4]

* A sound background of high school algebra, geometry and trigonometry is essential. A terminal course in physics intended to fulfill the natural science requirements of the College. The principles of mechanics, heat, electricity and magnetism, optics, atomic and nuclear physics. Three hours lecture, three hours laboratory or supervised work.

*113: GENERAL PHYSICS I. [2]

Corequisite: Mathematics 113. Mechanics. Two hours lecture, one hour recitation.

114: GENERAL PHYSICS II. [2]

Prerequisite: Physics 113 and Mathematics 113. Corequisite: Math-

* The four-semester sequence, Physics 113, 114, 213, 214, 215, 216 is a calculus-based course in General Physics to be taken by physics, chemistry, engineering and those mathematics and science students who require a more intensive course than Physics 101 and 102.
Mathematics 114. Mechanics, heat, properties of matter. Two hours lecture, one hour recitation.

201: SCIENCE AND TECHNOLOGY IN THE CONTEMPORARY ENVIRONMENT. [3] (Offered second semester only.)
No prerequisite: A survey of science and technology with emphasis on their interaction with our contemporary culture. This course will include qualitative familiarization with science beneath the earth, on the earth, near space and in outer space as it relates to our civilization. Three hours lecture. A student who received credit for Physics 101-102 may not also receive credit for Physics 201.

203: INTRODUCTION TO ELECTRONIC INSTRUMENTS. [2]
Prerequisite: Physics 101-102. A course designed for Biology and Chemistry majors to cover basic theory and operation of various electronic instruments and devices. One hour lecture, three hours laboratory. This course may not be applied toward a degree in Physics.

207: THERMODYNAMICS. [3] (Same as Engineering 207)
Prerequisite: Physics 114 and Mathematics 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]
Prerequisite: Physics 114 and Mathematics 114. Corequisite: Physics 215 and Mathematics 213. Electricity and magnetism. Three hours lecture, one hour recitation.

215: GENERAL PHYSICS III. (Laboratory) [2]
Prerequisite: Physics 114 or Physics 102. Corequisite: Physics 213 or permission of the instructor. Experiments on mechanics and electricity. Emphasis is given on the use of the oscilloscope. Three laboratory hours.

215: GENERAL PHYSICS IV. [3]

216: GENERAL PHYSICS IV. (Laboratory) [2]
Prerequisite: Physics 114 or Physics 102. Corequisite: Physics 214 or permission of the instructor. Experiments on optics and modern physics. Three laboratory hours.
302: ELECTRONICS. [4] (Same as Engineering 302)
Prerequisite: Physics 213, 215 or permission of the 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: Physics 214, 216 and Mathematics 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: Physics 305. Vibrating string, plane waves, interference, diffraction, polarization, electromagnetic waves, dispersion, relativity. Three hours lecture.

311, 312: METHODS IN THEORETICAL PHYSICS. [3, 3]
Prerequisite: Physics 214 and Mathematics 214 or 216. Physics 311 or Mathematics 313 is prerequisite for 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 tensors. Three hours lecture.

402, 403: AN INTRODUCTION TO QUANTUM MECHANICS AND ATOM PHYSICS. [3, 3]
Prerequisite: Physics 303, or permission of the instructor. Physics 402 is prerequisite to Physics 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: Physics 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 involv-
ing 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 staff 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 staff member.

410: **SOLID STATE PHYSICS.** [3]
Prerequisite: *Physics 402.* Crystal structures, binding, lattice vibrations, the free electron model, metals, semiconductors, superconductivity, magnetism. *Three hours lecture.*

411: **COMPUTATIONAL PHYSICS.** [3]
Prerequisites: *Physics 311 or equivalent and Mathematics 266 or permission of the instructor.* Solutions to current problems in physics using digital computers. *Three hours lecture.*

414: **INTRODUCTORY NUCLEAR PHYSICS.** [3]
Prerequisite: *Physics 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.*

**ASTRONOMY COURSE**

103: **ASTRONOMY.** [3]
No prerequisite: A descriptive introduction to the principles and topics of modern astronomy. The solar system, the galaxies, quasars, and the nature of space radiation are discussed. The contemporary theories of the origin of the universe including the pertinent ideas of the general theory of relativity are also considered. *Three hours lecture.*

**ENGINEERING COURSES**

(Two Years Only)

For a description of the Engineering Program, see Chapter VI, Page 57.

101: **INTRODUCTION TO ENGINEERING.** [1]
Introduction to the technological problems encountered in the profession of engineering. Approaches and methods used in problem solving including computer techniques. *One hour lecture.*
102: ENGINEERING COMPUTATIONS. [1]
Basic concepts of design, analysis, synthesis and evaluation. Specific engineering design projects utilizing the computer. Two laboratory hours.

191: ENGINEERING GRAPHICS. [3]
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, three hours laboratory.

192: INTRODUCTION TO MECHANICS. [3]
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: Mathematics 114 and Physics 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]
Prerequisites: Engineering 192 and Physics 114 or permission of the instructor. Concept of stress, strain, elasticity and plasticity, combined stresses, 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: Physics 213, 215 or permission of the 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.
Department of Psychology

Professor Jordan
Associate Professor Mandes
Assistant Professors Buffardi, Cohen, Kiefer, McKeithen, Mellinger, Moretz, Pasnak, Peng, Tyer
Acting Assistant Professors Madero, Walters
Lecturers Collins, Crowe, Drummond, Higgs, Ruskin

Requirements for the Major

The major program in psychology culminates in a Bachelor of Arts degree. In addition to the general requirements for that degree set forth in the academic regulations of the University, thirty-five semester-hours in psychology including Psychology 221, 322, 401, and 413 must be presented. Students are strongly advised to elect relevant courses in biology, philosophy, sociology, and anthropology in addition to these requirements for the major.

Not more than forty-two hours in psychology may be submitted in fulfillment of the degree program, but hours of credit in excess of that number may be counted toward graduation as elective hours.

Sample Schedule for Psychology Majors*

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<thead>
<tr>
<th>First Semester</th>
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<tbody>
<tr>
<td>English 101</td>
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<tr>
<td>Natural Science</td>
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<tbody>
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<th>Fifth Semester</th>
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</table>

* See Introduction, page 52.
Seventh Semester  |  Eighth Semester
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Psychology  | Psychology 313 or 402
Psychology 401  | Psychology 413
Electives  | Electives
 | 9
 | 15

## PSYCHOLOGY COURSES

### 201: SOCIAL PSYCHOLOGY. [3]
Prerequisite: Psychology 101-102 or permission of instructor. A study of man's development in a social matrix, stressing particularly interpersonal behavior. The topics presented include socialization, cultural behavior, group norms, group roles, types of leadership, intragroup status, and attitude formation.

### 202: PERSONALITY THEORY. [3]
Prerequisite: Psychology 101-102 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. Journals and other literature are used to introduce research methods and problems.

### 203: PSYCHOLOGY OF CHILDHOOD. [3]
Prerequisite: Psychology 101-102 or permission of instructor. A study of the process of human development from conception to adolescence. Genetic factors and environmental influences as they interrelate to shape physical, intellectual, emotional and social growth are considered. Pertinent psychological theories and the research findings upon which they are based are presented.

### 204: PSYCHOLOGY OF ADOLESCENCE. [3]
Prerequisite: Psychology 101-102 or permission of instructor. A study of the biological and cultural changes accompanying adolescence and the effect of these changes on emotional, intellectual, and physical growth; social development and heterosexuality; adolescent personality; problems of adjustment; civic competence and juvenile delinquency; emancipation from parents, and vocational choice.

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211: HISTORY OF PSYCHOLOGY. [3]
Prerequisite: Psychology 101-102 or permission of instructor. A survey of man's attempts to understand himself systematically from the classical age until the beginning of the present century. Special emphasis will be placed on the models of man, be they explicit or implicit, underlying this thinking and the extent by which they changed or did not change with time, their empirical justification, and the extent by which they can be called "scientific".

221: STATISTICS FOR THE BEHAVIORAL SCIENCES. [4]
Prerequisite: Psychology 101-102 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. (This course is the same as Sociology 221; both may not be taken for credit.)

301: ABNORMAL PSYCHOLOGY. [3]
Prerequisite: Psychology 202 or permission of instructor. A study of factors underlying human behavior and the relationships between these factors and abnormal behavior. Special emphasis is placed upon the dynamics of maladjustment which result in neuroses and psychoses.

302: ABNORMAL PSYCHOLOGY. [3]
Prerequisite: Psychology 301 or permission of instructor. A study of the development of abnormal behavior patterns. Also considered are present-day methods of diagnosis, treatment and prevention of serious mental disorders such as psychosomatic disorders, the psychoses, character disorders and mental retardation.

303: COGNITIVE DEVELOPMENT. [3]
Prerequisite: Psychology 203 or permission of instructor. The theories of cognitive development of Jean Piaget are discussed, as well as the views of Bruner, Sigel and Hunt. Experimental support of these theories will be considered. Several approaches to programs of enrichment, particularly with the culturally disadvantaged, will be examined.

306: THINKING AND PROBLEM SOLVING. [3]
Prerequisite: Psychology 211 or permission of instructor. The major psychological theories on thinking and problem solving will be studied and the experimental and empirical evidence adduced in their favor will be critically reviewed.

307: PHYSIOLOGICAL PSYCHOLOGY. [3]
Prerequisite: Psychology 101-102 or permission of instructor. Biol-
ogy is desirable but not required as a prerequisite. A systematic examination of the physiological mechanisms and processes, neural and chemical, underlying behavior.

308: PSYCHOLOGY OF MOTIVATION. [3]
Prerequisite: Psychology 101-102 or permission of instructor. A survey of contemporary approaches to motivational theory in terms of such concepts as instinct, drives, reward and punishment, curiosity and exploration, frustration and conflict, and selected acquired sources of motivation.

313: PSYCHOLOGY OF LEARNING. [3]
Prerequisite: Psychology 101-102 or permission of instructor. A survey of the basic principles of human and animal learning, with attention to factors which influence memory, discrimination, and problem solving.

315: PSYCHOLOGY OF BUSINESS AND INDUSTRY. [3]
Prerequisite: Psychology 101-102 or permission of instructor. An examination of the application of psychological principles and methods to problems commonly encountered in business and industry.

322: EXPERIMENTAL PSYCHOLOGY. [5]
Prerequisite: Psychology 221 or permission of instructor. An approach to experimental psychology. Lecture topics include classical and contemporary studies in sensation and perception, animal and human learning, concept formation, and psycholinguistics. Laboratory experiments will provide students with semi-independent research experience with these topics. Three class hours, four laboratory hours.

401: PSYCHOLOGICAL TESTS AND MEASUREMENTS. [3]
Prerequisite: Psychology 221 or permission of instructor. An examination of principles underlying the theory, interpretation, and administration of psychological tests for evaluating personality attributes as employed in schools, industry, and clinics. A survey of representative tests in the fields of intelligence, achievement, aptitude, interests and personality is undertaken.

403: SEMINAR IN INFANT DEVELOPMENT. [3]
Prerequisite: Psychology 203 or permission of instructor. Examination of current issues, research methods and clinical evaluation techniques in the field of infant development. Genetic, constitutional and environmental influences will be considered with special attention to prenatal and perinatal factors, role of stimulation, and the interaction of biochemical, physiological, behavioral and experien-
tial variables. Areas of development covered to include sensorimotor, perceptual-cognitive, language, motivation and personality.

404: THE EXCEPTIONAL CHILD. [3]
Prerequisite: Psychology 203 or permission of instructor. Consideration of problems associated with developmental deviation in infancy through adolescence. Special emphasis will be given to behavioral characteristics and educational needs found in mental retardation, minimal brain dysfunction, special learning disabilities and other handicapping conditions. The special needs and problems of the gifted child, the disturbed child and the delinquent child will also be examined.

410: COMPARATIVE PSYCHOLOGY. [4]
Prerequisites: Psychology 307 or permission of instructor. Principles and methods in the study of animal psychology. Topics will include genetics, evolution, early experience, species-specific behavior, consummatory behavior, and learning. Laboratory experiments will provide students with semi-independent research experience with these topics. Three class hours, three laboratory hours.

413: THEORIES AND SYSTEMS OF PSYCHOLOGY. [3]
Prerequisite: Twelve hours in upper division psychology courses or permission of the instructor. The various systems and theories that have played a role in twentieth century psychology will be studied: association theory, structuralism, the many forms of behaviorism, the organismic psychologies, theories of personality and abnormal behavior, and the contemporary anti-theoretical theories.

415: HUMAN FACTORS ENGINEERING. [3]
Prerequisite: Psychology 315 or permission of instructor. This course will investigate the complex man-to-man and man-to-machine interactions found in industry today. It will involve an understanding of those techniques utilized for the proper assignment of functions between man and machine. Extensive empirical research findings and their theoretical basis will be examined.

416: THE CLINICAL METHOD IN PSYCHOLOGY. [3]
Prerequisite: Psychology 302 or permission of instructor. The historical and empirical foundations of clinical psychology will be studied with emphasis being placed on how clinical practice was shaped by theories, research, and social organization. In conclusion the major forms of current clinical practice will be reviewed.

431: PERCEPTION. [3]
Prerequisite: Psychology 322 or permission of instructor. An investigation of the experimental psychology of perception with an emphasis on current theories and research.
480: SEMINAR IN PSYCHOLOGY. [2]
Prerequisite: Enrollment is restricted to senior majors in psychology. This course may be taken for credit only once by a student. Topics of contemporary interest in psychology will be offered through individual class reports and group discussion. The topic to be studied will vary from semester to semester.

499: INDEPENDENT STUDY IN PSYCHOLOGY. [3]
Prerequisite: Psychology 322, a "B" average in psychology, and a research proposal approved in advance of enrollment by the instructor and the chairman of the department. Open to senior majors only. Investigation of a psychological problem according to individual interest with stress on research methods.
DEPARTMENT OF PUBLIC AFFAIRS

Professor Early (Chairman)
Associate Professor Khoury
Assistant Professors Godbold, Kolbo, Nicholson
Instructor Holmes
Lecturers Andrews, Knight

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]
Distribution of the world's landform features, climates, vegetation types, soils, and mineral resources; their characteristics, causes, and significance. Interrelationships of the natural environment. Properties of the globe and its representation in the form of maps treated in detail.

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]
Prerequisite: Geography 102 is desirable but not required as a prerequisite. A regional survey of physical resources, population, cultural characteristics, and economic activities in Latin America.

206: CLIMATOLOGY. [3]
World distribution of climatic elements; methods of arranging climatic data; climatic classifications and world distributions of climatic types; general climatic circulation, changes, and fluctuations.

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 role played by the natural environment and resource base in the changing political geography of Europe. Their influence upon such representative topics as recent trends toward supranationalism, changing patterns of population distribution, and urbanization will be emphasized.

GOVERNMENT AND POLITICS

REQUIREMENTS FOR THE MAJOR

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 George Mason 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.

However, a student who transfers to George Mason University must earn at this campus at least twelve 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.

SAMPLE PROGRAM B.A. IN GOVERNMENT AND POLITICS*

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td>Science</td>
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<td>English Composition</td>
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<tr>
<td>Foreign Language</td>
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<td>Government 132</td>
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*This specimen program is based on 12 hours of three semester-hours work earned in government at George Mason University or brought in on transfer. All required foreign language credit is shown as earned on this campus. See Introduction, page 52.
### Third Semester
- Literature: 3
- Humanities Elective: 3
- Government 204: 3
- Behavioral Science Elective: 3
- Foreign Language: 4
- **Total:** 16

### Fourth Semester
- Government 241: 3
- Literature: 3
- Humanities Elective: 3
- Behavioral Science Elective: 3
- Electives: 3
- **Total:** 15

### Fifth Semester
- Government Electives: 10
- Electives: 6
- **Total:** 16

### Sixth Semester
- Government Elective: 5
- Electives: 9
- **Total:** 14

### Seventh Semester
- Government Elective: 5
- Electives: 9
- **Total:** 14

### Eighth Semester
- Government Elective: 5
- Electives: 9
- **Total:** 14

---

**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:

- **Composition and literature:** 12
- **Core requirements:** 39
  - Economics: 101, 102, and 6 hours to be elected from 201, 202, 301 and 302.
  - Business Administration: 101, 212, 261, 262 and at the Northern Virginia Community College, DAPR 147.
- **Supporting requirements:** 9
  - Communications

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http://catalog.gmu.edu
## BUSINESS ADMINISTRATION 232
- Speech 251
- English 467
- Psychology
- Sociology
- Open electives

### SAMPLE PROGRAM B.S. WITH A MAJOR IN PUBLIC ADMINISTRATION*

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<thead>
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<td>Government 440</td>
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<td>Electives</td>
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* See Introduction, page 52.
GOVERNMENT AND POLITICS COURSES

103: INTRODUCTION TO DEMOCRATIC GOVERNMENT. [3]
An analysis and comparison of the American presidential and the British parliamentary forms of democratic governments. (Students who have taken Government 101: NATIONAL GOVERNMENT OF THE UNITED STATES are not eligible to take this course.)

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: Government 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.

Prerequisite: Junior or senior standing. An introduction to general jurisprudence, and to 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.

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: Government 241, 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.

Prerequisite: Junior or senior standing. Theories of international relations; organization; law; pacific settlement of disputes; crisis and conflict resolution.

Prerequisite: 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 executives, legislatures, 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. Introduction to the law of public office in general with some specific attention to Virginia.
Prerequisite: Junior or senior standing. An examination of the concepts, methods and systems employed in the management of money and manpower by governmental administration with primary focus upon that in the United States.

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.

480: INTERNSHIP. [2-5]
Open to authorized senior majors only. Contact department prior to enrollment. Internships are approved work-study programs established by the department with specific employers. Credit will be fixed to suit each individual situation as determined by the department.

SOCIAL SCIENCE COURSE

491: INTERDISCIPLINARY SEMINAR: CONTEMPORARY LATIN AMERICA. [3]
Prerequisite: Required of senior majors in the Latin American program. Open to other students by permission. A study of the interrelationship of economic, political and social factors in explaining current Latin American reality.
DEPARTMENT OF SOCIOLOGY

Associate Professors Hughes, Tavani
Assistant Professors MacConkey (Acting Chairman), Cannavale, DuMez, Wyatt
Acting Assistant Professors Hardwick, Millar, Ritter
Instructor Ryburn
Lecturers Dury, Hutchinson, McLaughlin, Picciano, Ralston, Wakefield

REQUIREMENTS FOR THE MAJOR

Students majoring in sociology must satisfy the area requirements set for the Bachelor of Arts degree at George Mason University. In addition, they must present thirty-three hours of work in sociology, to include Sociology 221, 303 and 411. Students are advised to elect relevant courses in anthropology, biology, philosophy and psychology in addition to these requirements for the major. Three hundred level courses require at least six semester-hours in sociology (includes Sociology 101); four hundred level courses require at least twelve semester-hours in sociology (includes Sociology 101).

Not more than forty-two credit hours in sociology may be submitted for the degree requirements. Additional credit hours in sociology may be counted as elective hours on the degree application form.

SAMPLE SCHEDULE FOR SOCIOLOGY MAJORS*

<table>
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*See Introduction, page 52.
Sociology 303 4  
Sociology 9  
Elective 3  

16

Sociology 411 9  
Electives 6  

15  

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.

152: MODERN SOCIAL PROBLEMS. [3]
Prerequisite: Sociology 101 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: Sociology 101 or permission of instructor. A study of marriage and the family in contemporary America. Premarital behavior and courtship; marital adjustment; socialization of children. Lectures and discussions.

202: CRIMINOLOGY. [3]
Prerequisite: Sociology 101 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: Sociology 101 or permission of instructor. The study of the characteristics, structure, and processes of small group dynamics; theories and models of group analysis; techniques of obser-
viation and research on variables in small groups that produce problems in our national life.

221: STATISTICS FOR THE BEHAVIORAL SCIENCES. [4]
Prerequisite: Sociology 101 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.* (This course is the same as Psychology 221; both may not be taken for credit.)

225: SOCIOLOGY OF WAR AND PEACE. [3]
Prerequisite: Sociology 101 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.

240: SOCIAL SERVICE IN SOCIETY. [3]
Prerequisite: Sociology 101 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.

302: SOCIOLOGY OF DELINQUENCY. [3]
Prerequisite: Sociology 202 or permission of instructor. An inquiry into the types, causes, treatment and prevention of delinquent behavior.

303: SOCIOLOGICAL RESEARCH METHODOLOGY. [4]
Prerequisite: Sociology 221 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 Sociology 101 or permission of instructor. The major theoretical approaches to deviant behavior will be explored: functional theory, conflict theory, and symbolic interaction theory. Both the positive and negative aspects of deviant behavior will be examined in relation to their effects upon society.
306: DEMOGRAPHIC ANALYSIS. [3]
Prerequisite: Sociology 101 or permission of instructor. 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 Sociology 101 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. Includes examination of leadership in various types of collective behavior.

308: SOCIOLOGY OF RACE RELATIONS AND MINORITIES. [3]
Prerequisite: Six hours in sociology to include Sociology 101 or permission of instructor. An examination of ethnic and nationality minority groups in modern society with particular emphasis on the Negro in the United States.

332: SOCIOLOGY OF URBAN COMMUNITIES. [3]
Prerequisite: Six hours in sociology to include Sociology 101 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 as a sociological phenomenon.

363: ORGANIZATION OF COMMUNITY RESOURCES. [3]
Prerequisite: Sociology 252 or permission of instructor. An analysis of the community organization as a planning process to meet human needs and to prevent social ills. A view of the role of the professional, the citizen participant and the power structure in community decision-making.

382: EDUCATION IN CONTEMPORARY SOCIETY. [3]
Prerequisite: Six hours in sociology to include Sociology 101 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.

390: MEDICAL SOCIOLOGY. [3]
Prerequisite: Six hours of sociology to include Sociology 101 or permission of instructor. An examination of the social context of disease and medical care, the positions 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 Sociology 101 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.

401: SOCIAL STRATIFICATION. [3]
Prerequisite: Twelve hours in sociology to include Sociology 101 or permission of instructor. An examination of theories of and research in social stratification. Attention is given to western and nonwestern systems of social differentiation, with emphasis on selected bases of occupational and other social structures, of social mobility, and status relations in society.

402: SOCIOLOGY OF PUNISHMENT AND CORRECTIONS. [3]
Prerequisite: Twelve hours in sociology to include Sociology 302 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 Sociology 303 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 Sociology 101 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]
Prerequisites: Senior standing, Sociology 411, and any other addi-
tional 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.

480: SEMINAR IN SOCIOLOGY. [2]
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 STUDY IN SOCIOLOGY. [3]
Prerequisites: Eighteen hours of sociology which includes Sociology 303 and 411, a B average in sociology, senior standing, 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.

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: a. A minimum of thirty (30) semester hours in Social Welfare, to include Social Welfare 251, 352, 357, 453, 454, 463, 464, and either 423 or 425; b. Sociology 101 and 152, Psychology 101, 102, 203 and 204, and either Sociology 203 or Psychology 201; c. Six semester-hours in each of the following: English composition, English literature, the Humanities (Philosophy/Religion/Art/Music), and the Social Sciences (History/Economics/Government); d. Eight semester-hours in Biology, and e. 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 Social Welfare 251.
(3) Have completed application for Social Welfare major.
(4) Have satisfactorily served 3-4 hours per week for one semester as a volunteer in a social agency approved by the Director of Field Placement.

The student's application for admission to the Social Welfare major will be reviewed by a Social Welfare faculty member who will then recommend what action is to be taken on it.
A personal interview may be required by the faculty reviewer before he reaches a decision. A student may appeal a decision to disapprove his application by submitting a written statement of appeal to the Director of the Social Welfare Program. An appeals committee of faculty will review the application material, the original reviewer's comments, and the student's appeal statement in reaching a final decision. This appeals committee will consist of two faculty members to be appointed by the Director and one faculty member to be selected by the student.

**SAMPLE SCHEDULE FOR SOCIAL WELFARE MAJOR***

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* See Introduction, page 52.
### SOCIAL WELFARE COURSES

**251: INTRODUCTION TO SOCIAL WELFARE. [3]**  
Prerequisite: Sociology 152 or permission of instructor. An introduction to the field of Social Welfare, its historical development, central concepts and institutional nature, and the human needs which underlie it. Examines the problems that characterize social agency clientele of varied class, racial and ethnic backgrounds, and the formal and informal processes through which social services are organized and extended to individuals, families, groups, neighborhoods and larger communities. Offers volunteer field experience in and analysis of some of the institutions, agencies and programs developed to meet today's complex social needs.

**352: THE SOCIAL WORK PROFESSION. [3]**  
Prerequisite: Social Welfare 251. An introduction to the profession of social work, its historical and philosophical bases, values, norms, functions, and methods. Explores social work's links to other disciplines and to social action and policy formulation. Studies the basic processes and adaptive roles of the social worker at the various levels of individual client, group and community. Particular emphasis is placed on processes common to professional helpers, such as communication, observation and relationship-development. Social problems and fields of service are used as major foci of learning, both classroom- and field-based. Students use field visits to examine some of the systems which process or serve people with problems.

**357: METHODS OF SOCIAL WORK INTERVENTION. [3]**  
Prerequisite: Social Welfare 352. 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 role-plays. Particular emphasis is placed on identification of specific change objec-
tives 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. Various theoretical orientations to practice are articulated, "models" explored, specialized techniques demonstrated, and particular social work roles delineated. Stress is placed on the worker's responsibility for effecting environmental as well as intrapersonal change.

423: SOCIAL WORK WITH ADOLESCENTS. [3]
Prerequisites: Social Welfare 357. Examines the major needs of adolescents and 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.

425: PLANNING AND ORGANIZING FOR COMMUNITY CHANGE. [3]
Prerequisite: Social Welfare 357. 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 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 inequity, and ways of reordering them explored.

453: PRACTICUM. [6]
Prerequisites: Social Welfare 357, recommendation of advisor, and concomitant enrollment in Social Welfare 463. 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
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communities and in activities sponsored by or involving professional social workers. Discussion of field experiences in Social Welfare 463 and periodic faculty-agency consultations are employed to give further focus to learning.

454: PRACTICUM. [6]

463: SENIOR SEMINAR. [3]
Prerequisites: Social Welfare 357, and concomitant enrollment in Social Welfare 453. Designed to enable the student to deepen, expand and integrate his knowledge and skill for more effective social work intervention. Emphasis is placed on analysis of change strategies and roles, utilizing data drawn from concurrent student field experiences, literature, and dialogue with social agencies' personnel. Data are also gathered through limited but structured research into systems affecting individuals, families, groups and communities and assessed against the experiences of the students and other personnel, and the findings of published research. Implications for practice are a major learning goal of these studies.

464: SENIOR SEMINAR. [3]

ANTHROPOLOGY COURSES

101: HUMAN EVOLUTION AND PREHISTORY. [3]
The origin and evolution of man based upon the fossil record; the status of modern racial groupings; the history of human society from the earliest times to the rise of the civilizations in the Old and New Worlds.

102: SOCIAL ANTHROPOLOGY. [3]
The comparative study of culture (including language) and the social institutions of mankind with particular reference to primitive and peasant societies. Certain aspects of Western culture will be considered from this perspective.
AMERICAN STUDIES

American Studies Committee
Dr. Aileen S. Walls, Chairman
Ms. Kay J. Mussell
Dr. Richard A. Gleissner
Dr. Norman A. Yance

REQUIREMENTS FOR THE MAJOR

This interdisciplinary program culminates in the conferral of the degree of Bachelor of Arts with a major in American Studies and requires a minimum of 120 semester-hours of course work. Participants must satisfy the area requirements for the Bachelor of Arts degree at George Mason University and the requirements for a major in American Studies. The American Studies major requires the presentation of forty-two hours in American Studies divided as follows:

A. Nine semester-hours in interdisciplinary seminars:
American Studies 302: Introduction to American Studies. [3]
American Studies 401: Themes in American Civilization. [3]
American Studies 402: Readings in American Studies. [3]

B. A minimum of nine semester-hours in English selected from the following courses:

English 330: American Folklore. [3]
English 381: Colonial and Federalist American Literature. [3]
English 382: American Renaissance. [3]
English 385: American Poetry of the Twentieth Century. [3]
English 387: Development of the American Novel to 1914. [3]
English 388: Development of the American Novel Since 1914. [3]
English 389: Plays of Twentieth Century American Dramatists. [3]

English 384: Literature of the Modern South: 1920 to the Present. [3]

English 386: Literature of Black America. [3]

English 390: Recent American Poetry. [3]

*Inquiries concerning this program should be directed to Dr. Aileen S. Walls, Chairman, American Studies Committee, Department of English, George Mason University, Fairfax, Va. 22030, Telephone (703) 323-2223.
English 442, 444, 446: Selected Studies and Writers (In semesters when selections deal with American Literature). [3, 3, 3]

C. A minimum of six semester-hours in history selected from the following courses:

History 333: Westward Movement in the United States. [3]
History 343, 344: Diplomatic History of the United States. [3, 3]
History 348: American Economic History. [3]
History 351: History of the Old South, OR 352, South Since 1865. [3]
History 401: Colonial America. [3]
History 411, 412: Cultural and Intellectual History of the United States. [3, 3]
History 433: United States in the Twentieth Century. [3]

D. A minimum of eighteen semester-hours from courses directly related to the American Studies program:

1. A minimum of nine semester-hours must be selected from the courses listed below:

Biology 271: Characteristic Animals of the Americas. [3]
Economics 300: Labor Problems. [3]
Geography 215: Geography of the United States and Canada. [3]
Government 204: American State and Local Government. [3]
Government 241: Introduction to Public Administration. [3]
Government 310: Political Dynamics. [3]
Government 415: Government and Politics of Metropolitan Areas. [3]

Humanities 238: Black Religion. [3]
Music 205: Music in the United States. [3]
Philosophy 331: Philosophy in the United States. [3]
Religion 231: Religion in America. [3]
Religion 332: American Religion in Social Thought and Action. [3]

Sociology 152: Social Problems. [3]
Sociology 332: Sociology in Urban Communities. [3]
Sociology 308: Sociology of Race Relations and Minorities. [3]

2. An additional nine semester-hours must be selected from courses satisfying requirements (B), (C) or this section (D), or from other related courses to be selected by the student after consultation with his advisor.
## SAMPLE SCHEDULE FOR A DOUBLE MAJOR IN AMERICAN STUDIES AND ENGLISH*

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<td>English 358</td>
<td>3</td>
</tr>
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<td><strong>Total</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

### Seventh Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Studies 401</td>
<td>3</td>
</tr>
<tr>
<td>English 385</td>
<td>3</td>
</tr>
<tr>
<td>English 387</td>
<td>3</td>
</tr>
<tr>
<td>English 397</td>
<td>3</td>
</tr>
<tr>
<td>English 361</td>
<td>3</td>
</tr>
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<td><strong>Total</strong></td>
<td><strong>15</strong></td>
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### Eighth Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>American Studies 402</td>
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<tr>
<td>English 388</td>
<td>3</td>
</tr>
<tr>
<td>English 384</td>
<td>3</td>
</tr>
<tr>
<td>English 382</td>
<td>3</td>
</tr>
<tr>
<td>English 395</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

* See Introduction, page 52.
### SAMPLE SCHEDULE FOR A DOUBLE MAJOR IN AMERICAN STUDIES AND HISTORY*

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 101</td>
<td>English 102</td>
</tr>
<tr>
<td>History 121</td>
<td>History 122</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>Foreign Language</td>
</tr>
<tr>
<td>Philosophy 111</td>
<td>Philosophy 151</td>
</tr>
<tr>
<td>Elective</td>
<td>Government 204</td>
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<td>16</td>
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</table>

<table>
<thead>
<tr>
<th>Third Semester</th>
<th>Fourth Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 205</td>
<td>English 206</td>
</tr>
<tr>
<td>History 333</td>
<td>History 348</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>Biology 104</td>
</tr>
<tr>
<td>Biology 103</td>
<td>Religion 231</td>
</tr>
<tr>
<td>Philosophy 331</td>
<td>Elective</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
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<td>17</td>
<td>16</td>
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<table>
<thead>
<tr>
<th>Fifth Semester</th>
<th>Sixth Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 382</td>
<td>American Studies 302</td>
</tr>
<tr>
<td>History 433</td>
<td>Sociology 152</td>
</tr>
<tr>
<td>Sociology 101</td>
<td>History 301</td>
</tr>
<tr>
<td>English 385</td>
<td>Math 106</td>
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<tr>
<td>Elective</td>
<td>History 351</td>
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<table>
<thead>
<tr>
<th>Seventh Semester</th>
<th>Eighth Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Studies 401</td>
<td>American Studies 402</td>
</tr>
<tr>
<td>English 386</td>
<td>History 329</td>
</tr>
<tr>
<td>History 328</td>
<td>History 412</td>
</tr>
<tr>
<td>History 411</td>
<td>History 492</td>
</tr>
<tr>
<td>Elective</td>
<td>Elective</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>15</td>
</tr>
</tbody>
</table>

* See Introduction, page 52.
AMERICAN STUDIES COURSES

American Studies 302: INTRODUCTION TO AMERICAN STUDIES. [3]
Prerequisite: Open to Junior American Studies majors with consent of the Chairman, American Studies Committee. 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.

American Studies 401: THEMES IN AMERICAN CIVILIZATION. [3]
Prerequisite: Open to Senior American Studies majors with consent of the Chairman, American Studies Committee. 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.

American Studies 402: READINGS IN AMERICAN STUDIES. [3]
Prerequisite: Open to Senior American Studies majors with consent of the Chairman, American Studies Committee. 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.
LATIN AMERICAN STUDIES

Latin American Studies Committee

Dr. Frank MacD. Spindler, Chairman
Dr. Rolf Hayn
Dr. Dorothy I. MacConkey
Mr. Michael J. McDermott

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.* Participants must satisfy the area requirements for the Bachelor of Arts degree at George Mason University. In addition, they must present thirty-six semester-hours of course work in Latin American Studies divided to include (a) eighteen semester-hours, upper division courses (300-400 level) in a core discipline, and (b) eighteen semester-hours of Latin American oriented courses other than the core discipline, including the interdisciplinary seminar on Contemporary Latin America (Social Sciences 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. A comprehensive examination, to be administered at the end of the senior year, must be satisfactorily passed.

SAMPLE SCHEDULE FOR LATIN AMERICAN STUDIES MAJOR**

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 101: Composition</td>
<td>English 102: Composition</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Art, music, philosophy, religion</td>
<td>Art, music, philosophy, religion</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Portuguese or Spanish 151</td>
<td>Portuguese or Spanish 152</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Anthropology, psychology, sociology</td>
<td>Anthropology, psychology, sociology</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>History 121: U.S.</td>
<td>History 122: U.S.</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

16 16

* Inquiries concerning this program should be directed to Dr. Frank MacD. Spindler, Chairman, Latin American Studies Committee, George Mason University, Fairfax, Virginia, 22030, Telephone (703) 323-2246.

** See Introduction, page 52.
LATIN AMERICAN STUDIES 169

Third Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 203</td>
<td>3</td>
</tr>
<tr>
<td>Portuguese or Spanish 251</td>
<td>4</td>
</tr>
<tr>
<td>Natural science</td>
<td>4</td>
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<tr>
<td>Core discipline prerequisite</td>
<td>3</td>
</tr>
<tr>
<td>History 361: Latin American History</td>
<td>3</td>
</tr>
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<td></td>
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Fifth Semester

<table>
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<tbody>
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</tr>
<tr>
<td>Core discipline (3–)</td>
<td>3</td>
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<tr>
<td>Latin American oriented</td>
<td>3</td>
</tr>
<tr>
<td>Science or mathematics</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>15</td>
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Seventh Semester

<table>
<thead>
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<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
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<tr>
<td>Latin American oriented</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>13</td>
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</table>

Fourth Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 204</td>
<td>3</td>
</tr>
<tr>
<td>Portuguese or Spanish</td>
<td>3</td>
</tr>
<tr>
<td>Natural science</td>
<td>4</td>
</tr>
<tr>
<td>Core discipline prerequisite</td>
<td>3</td>
</tr>
<tr>
<td>History 362: Latin American History</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>16</td>
</tr>
</tbody>
</table>

Sixth Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core discipline (3–)</td>
<td>3</td>
</tr>
<tr>
<td>Core discipline (3–)</td>
<td>3</td>
</tr>
<tr>
<td>Latin American oriented</td>
<td>3</td>
</tr>
<tr>
<td>Non-Western choice</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>15</td>
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</tbody>
</table>

Eighth Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core discipline (4–)</td>
<td>3</td>
</tr>
<tr>
<td>Social Science 491: Contemporary Latin America</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>12</td>
</tr>
</tbody>
</table>

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 Biology:

Biology 271: Characteristic Animals of the Americas. [3]

Department of Economics:

Economics 307: Economics of Developing Areas. [3]
Economics 308: Economic Development of Latin America. [3]
Economics 403: Development of Economic Thought. [3]
Economics 404: International Economics. [3]
170 LATIN AMERICAN STUDIES

Department of Foreign Languages:

Spanish 252: Spanish Conversation and Composition. [3]
Spanish 253: Commercial Spanish. [3]
Spanish 254: Spanish Civilization. [3]
Spanish 255: Latin American Civilization. [3]
Spanish 256: Readings in Spanish Literature. [3]
Spanish 257: Readings in Latin American Literature. [3]
Spanish 300: Spanish Civilization and Culture. [3]
Spanish 303, 304: Advanced Conversation and Composition. [3, 3]
Spanish 305, 306: Survey of Spanish Literature. [3, 3]
Spanish 307, 308: Latin American Literature. [3, 3]
Spanish 309, 310: Literature of the Golden Age. [3, 3]
Spanish 313, 314: Spanish Literature of the Nineteenth Century. [3, 3]
Spanish 315: Latin American Civilization and Culture. [3]
Spanish 320: Linguistics of the Spanish Language. [3]
Spanish 401: Latin American Poetry. [3]
Spanish 403, 404: Contemporary Spanish Literature. [3, 3]
Spanish 407, 408: Latin American Novel and Short Story. [3, 3]
Spanish 410: Cervantes. [3]
Spanish 412: Special Studies in Latin American Literature. [3]

Department of History:

History 343, 344: Diplomatic History of the United States. [3, 3]
History 362: Latin American History: The Modern Era. [3]
History 363: The History of Argentina, Brazil, and Chile. [3]
History 370: The Diplomatic History of Latin America. [3]
History 438: The Spanish Borderlands. [3]
History 443: History of Spain and Portugal. [3]
History 453: History of Mexico. [3]
History 491, 492: Senior Seminar in History. [3, 3]
History 493, 494: Directed Readings in History. [3, 3]
History 497: American Historiography. [3]

Department of Humanities:

Music 206: Latin American Music. [3]
Philosophy 231, 232: History of Western Philosophy. [3, 3]
Philosophy 334: Latin American Thought. [3]
Department of Public Affairs:
- Geography 201: Geography of Latin America. [3]
- Government 132: Introduction to International Politics. [3]
- Government 450: Cross-National Political Study. [5]
- Social Sciences 491: Interdisciplinary Seminar: Contemporary Latin America. [3]

Department of Sociology:
- Sociology 308: Sociology of Race Relations and Minorities. [3]
- Sociology 332: Sociology of Urban Communities. [3]
- Sociology 392: Formal Organization. [3]

Department of General Studies:
- LAC 151: Latin America. [3]
Law Enforcement Committee

Dr. Stephen T. Early, Jr., Chairman
Dr. Nehemiah Jordan
Captain Clyde E. Embrey (Northern Virginia Police Academy)
Dr. Edgar J. Fredericks (Northern Virginia Community College)

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 training 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. George Mason University offers no professional training courses in law enforcement, corrections or similar fields. Such work must be taken in an accredited program at another institution and transferred to George Mason University. The transfer of courses and credits to this program will be determined on an individual basis.

A student whose objective is to prepare himself to enter correctional work may make appropriate substitutions for courses in law enforcement. However, professional guidance should be the basis for such substitutions and must be sought prior to entering George Mason University.

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

* Inquiries concerning this program should be directed to Dr. Stephen T. Early, Jr., Chairman, Law Enforcement Program Committee, George Mason University, Fairfax, Virginia 22030.
Minimum Quantitative and Distributional Requirements by Subject

I. General
   a. English Composition ........................................ 6
   b. Literature—British or American ............................. 6
   c. Art, music and/or philosophy (excluding applied music and studio art courses) ...................... 6
   d. American History or Principles of Economics ........... 6
   e. A two-semester sequence in one science
      with a laboratory ........................................... 8
      __________________________________________________ 32

II. Major requirements
   a. Law enforcement ............................................. 22-33
      These courses or their equivalents are required professional preparation for this degree program.
      Introduction to Law Enforcement
      Patrol Administration
      Police Organization and Administration I, II
      Special Enforcement Problems
      Law Enforcement and the Community
      Criminal Law, Evidence and Procedure I, II, III
      Criminal Investigation Techniques I, II
   b. Directly related
      1. Government .................................................. 16
         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.
      2. Psychology .................................................. 12
         To consist of the introductory courses in general and courses in social and abnormal psychology.
      3. Sociology ..................................................... 16
         To consist of courses in the introductory sequence and of a course each in delinquency, criminology, urban communities, and race relations and minorities.
   c. Electives ....................................................... 28-17
      __________________________________________________ 128
      Total

Students who attend George Mason University to complete the program leading to the B.S. with a major in Law Enforcement
usually bring with them approximately 65 semester hours of work or its equivalent.

Remaining work may be completed in a schedule *similar* to the following:

<table>
<thead>
<tr>
<th>Fifth Semester</th>
<th>Sixth Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humanities Elective</td>
<td>Sociology 202</td>
</tr>
<tr>
<td>Government Elective</td>
<td>Government Elective</td>
</tr>
<tr>
<td>Sociology 232</td>
<td>Psychology 201</td>
</tr>
<tr>
<td>Electives</td>
<td>Electives</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>17</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Seventh Semester</td>
<td>Eighth Semester</td>
</tr>
<tr>
<td>Sociology 302</td>
<td>Sociology 308</td>
</tr>
<tr>
<td>Psychology 301</td>
<td>Electives</td>
</tr>
<tr>
<td>Electives</td>
<td>Humanities Elective</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>15</td>
</tr>
</tbody>
</table>

It is suggested that introductory courses in psychology and sociology be taken prior to entry at George Mason University but that other courses in these subjects be taken after transfer. Any course begun in a quarter system should be completed in that system.

Of the 128 hours required by this program one-fourth must be earned at George Mason University and at least twelve hours of that one-fourth must be in courses designated by numbers in the 300 and 400 series.

It is the responsibility of every prospective student to familiarize himself with the academic regulations of George Mason University and to identify and abide by the rules and procedures which are applicable to himself.
College of Professional Studies
DEGREE REQUIREMENTS

INTRODUCTION. The College of Professional Studies at George Mason University enrolls students preparing for certain professions. Currently, all business administration, elementary education, and health and physical education majors enroll in the College of Professional Studies. Additionally, the Department of Education is responsible for the professional sequence of courses and special standards, as well as the certification recommendation, for Arts and Sciences majors desiring to complete requirements for the Virginia Collegiate Professional Teaching Certificate.

NEW EARLY CHILDHOOD AND SECONDARY SCHOOL TEACHER EDUCATION PROGRAMS. In the Fall of 1973, a new teacher education program will be introduced. There will be a new major in Early Childhood Education which will prepare one for teaching in a nursery school, in the kindergarten, and in grades one through three. The Elementary Education major will then prepare students for teaching in grades four through seven.

B.S. IN NURSING PROGRAM. The State Council of Higher Education for Virginia has approved planning for the inauguration of this program in the Fall of 1974. The curriculum is being developed and one may obtain from the College office some general guidelines for the academic component (approximately two years) most of which will probably precede the professional nursing courses. In brief, it is possible for students early in their college programs to make adaptations for transferring into this new professional program. It now appears that, because of starting on a limited basis, admissions may have to be limited at first.

ACADEMIC REQUIREMENTS IN TEACHER EDUCATION. The overall George Mason University requirements specified in the opening part of the catalog section on "Academic Programs" (pp. 47-49) apply to students in the College of Professional Studies. Under "Academic Achievement," however, education students (both elementary and secondary) should be aware of the 2.300 cumulative average requirement for admission to teacher education and to student teaching. Students seeking to transfer into Education from other departments, schools, colleges and universities with cumulative averages lower than 2.300 are discouraged from doing so because they cannot complete the professional sequence of courses required for graduation without sufficient improvement to meet the standard. For further information on special requirements in preparing to teach, see Courses of Instruction: Department of Education.

1973-74 DEGREE REQUIREMENTS FOR THE COLLEGE OF PROFESSIONAL STUDIES are described in detail under Courses of Instruction: Department of Business Administration and Department of Education.
BUSINESS ADMINISTRATION

DEPARTMENT OF BUSINESS ADMINISTRATION

Associate Professor Tongren (Chairman)
Assistant Professors Gibbons, Marchione, Seely, Sood, Steinhauler
Acting Assistant Professors Gomolka, Lipton, Siff
Instructor Czarsty
Lecturers Amery, Fox, Goldberg, Kopprasch, Neumann, Sands

REQUIREMENTS FOR THE MAJOR

Bachelor of Science degree: The major program in business administration offered by George Mason University culminates in a Bachelor of Science degree and requires a minimum of 122 hours of course work. Students who have previously enrolled in another degree program in business administration must be enrolled in this degree program for at least one semester and earn at least three semester hours of credit in order to receive the degree of Bachelor of Science with a major in Business Administration.

Specific requirements for the degree of Bachelor of Science with a major in Business Administration are as follows:

Business Core Courses:

Business Administration

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting</td>
<td>6</td>
</tr>
<tr>
<td>Statistics</td>
<td>6</td>
</tr>
<tr>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>Business Communication</td>
<td>3</td>
</tr>
<tr>
<td>Marketing</td>
<td>3</td>
</tr>
<tr>
<td>Finance</td>
<td>3</td>
</tr>
<tr>
<td>Business Law</td>
<td>6</td>
</tr>
<tr>
<td>Strategy and Policy</td>
<td>3</td>
</tr>
<tr>
<td>Business Electives (see Note)</td>
<td>12</td>
</tr>
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</table>

45 hours

*Must be taken at George Mason University.

NOTE: Of the 12 hours of Business Electives, 6 must be taken in a specialized field of the student's choosing. For a current listing of specialty fields, and courses that may be used to fulfill them, a faculty advisor should be consulted.
**SAMPLE PROGRAM**

**BACHELOR OF SCIENCE WITH MAJOR IN BUSINESS ADMINISTRATION**

**NOTE:** Course numbers are shown where applicable. Otherwise, students should consult the Catalog.

**FRESHMAN YEAR**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA 101 and 102</td>
<td>Elementary Accounting</td>
<td>6</td>
</tr>
<tr>
<td>ENG 101 and 102</td>
<td>English Composition</td>
<td>6</td>
</tr>
<tr>
<td>MATH 107 and 108</td>
<td>Finite Mathematics</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Laboratory Science (Biology, Chemistry or Physics)</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>EITHER of the following:</td>
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</tr>
<tr>
<td></td>
<td>Humanities (Art, Music, Religion or Philosophy)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Behavioral Science (Psychology or Sociology)</td>
<td>6</td>
</tr>
</tbody>
</table>

**TOTAL FRESHMAN YEAR** 32 hours
BUSINESS ADMINISTRATION 179

SOPHOMORE YEAR
BA 261 and 262 Statistics 6 hours
ENG 203/204 or 205/206 English Literature 6 hours
ECON 101 and 102 Principles of Economics 6 hours
BA 232 Business Communication 3 hours
BA 234 Principles of Management 3 hours
Behavioral Science or Humanities 6 hours
(Whichever not taken Fresh. year)

TOTAL SOPHOMORE YEAR 30 hours

JUNIOR YEAR
BA 311 Principles of Marketing 3 hours
BA 341 Introduction to Business Finance 3 hours
ECON 301 or 202 Money and Banking or Price Theory 3 hours
ENG Speech (251 recommended) 3 hours
BA Business Administration Electives 6 hours
History or Government 3 hours
General Electives 9 hours
(Arts, Sciences or Business Admin.)

TOTAL JUNIOR YEAR 30 hours

SENIOR YEAR
BA 421 and 422 Business Law 6 hours
BA 434 Business Strategy and Policy 3 hours
ECON Elective Economics Course 3 hours
BA Business Administration Electives 6 hours
General Electives 12 hours
(Arts, Sciences or Business Admin.)

TOTAL SENIOR YEAR 30 hours

TOTAL HOURS 122 hours

BUSINESS ADMINISTRATION COURSES

101: ELEMENTARY ACCOUNTING. [3]
An overview of the accounting cycle with emphasis on preparation of financial statements and on accounting for sales, purchases, cash transactions, and internal control.

102: ELEMENTARY ACCOUNTING. [3]
Prerequisite: Business Administration 101 or permission of instructor.
An examination of the accounting principles and methods applicable
to partnerships and corporations engaged in trading and manufacturing and of the sources of capital available to them.

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 COBOL; laboratory exercises.

232: 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.

234: PRINCIPLES OF MANAGEMENT. [3]
The fundamentals 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.

261: STATISTICAL ANALYSIS I. [3]
Prerequisite: 6 credits of college mathematics (Math 107, 108 is recommended). The course is designed for the student who needs to use statistics in his chosen field of study. 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, multinomial, poisson, normal; sampling distributions; introduction to statistical inference-estimation.

262: STATISTICAL ANALYSIS II. [3]
Prerequisite: Business Administration 261. A continuation of Business Administration 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: Business Administration 101, 102 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: PRINCIPLES OF MANAGEMENT SCIENCE I. [3]
Prerequisite: Business Administration 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: PRINCIPLES OF MANAGEMENT SCIENCE II. [3]
Prerequisite: Business Administration 302. A continuation of Business Administration 303. 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.

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: DIGITAL COMPUTER CONCEPTS. [3]
Prerequisite: Business Administration 212 or permission of instructor. The organizational structure of computer installations; management information systems; quality control, recovery and multi-processing scheduling techniques; evaluating and installing proposed computer systems.

320: DISTRIBUTION SYSTEMS. [3]
Prerequisite: Business Administration 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.

325: MARKETING RESEARCH. [3]
Prerequisite: Business Administration 311. The concepts and uses of research to improve the effectiveness of marketing; particular emphasis upon the collection, analysis, and presentation of information important to marketing decisions.

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.

341: INTRODUCTION TO BUSINESS FINANCE. [3]
Prerequisite: Economics 101, 102 and Business Administration 101 and 102 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: Business Administration 101 and 102 or permission of instructor. An examination of the federal tax structure, including the economic structure of taxation, the Internal Revenue Code and the impact of judicial decisions.
346: PRINCIPLES OF INVESTMENTS. [3]
Prerequisite: Business Administration 102 and Business Administration 341 or permission of the 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.

351: GOVERNMENT AND BUSINESS. [3]
Prerequisite: Economics 101 and 102 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.

357: ORGANIZATIONAL BEHAVIOR AND ADMINISTRATION. [3]
Prerequisite: Business Administration 234 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.

370: INTERMEDIATE ACCOUNTING. [3]
Prerequisite: Business Administration 101 and 102. A detailed analysis of problems and the related theory concerning accounts normally found in financial statements. Preparation of supplementary and special reports for purposes of managerial control.

371: ADVANCED ACCOUNTING. [3]
Prerequisite: Business Administration 101, 102 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.

401: AUDITING. [3]
Prerequisite: Business Administration 370 or permission of instructor. Audit objectives, reports and procedures are presented as part of the independent public accountant's review along with newer tools of statistical sampling and EDP. Professional ethics and legal liabilities are examined as part of the framework within which the CPA works.

412: MARKETING MANAGEMENT. [3]
Prerequisite: Business Administration 311 or permission of instructor. The managerial aspects of marketing emphasizing the devel-
opment of marketing strategies and plans and integrating the specific elements of the marketing process. Emphasis on case analysis.

421, 422: BUSINESS LAW. [3, 3]
Prerequisite: Senior class standing. 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, partnership, bankruptcy, and other topics. This course utilizes the principles of marketing and finance as presented in Business Administration 311 and 341.

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.

433: ADVANCED FINANCIAL MANAGEMENT. [3]
Prerequisites: Economics 101, 102, Business Administration 101-102, and 341 or permission of the instructor. Completion of Business Administration 342 is recommended but not required. Functions and objectives of financial management; problems of internal financial analysis; management and control of current assets, capital 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: Senior class standing. 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.

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 department chairman. Investigation of a business problem according to individual interest of the student, with emphasis on research methods.
DEPARTMENT OF EDUCATION

Professors Snyder (Chairman), Azarowicz, Eaves, Joy, Schindler
Associate Professors Aebischer, Bindel, Edgemon, Evans, Gilstrap, Kilby, Martin, Richardson, D. Smith, Spuhler, Trowbridge
Assistant Professors Austin, Carroll, Dzama, Gedney, Keller, Krotee, Linn, Major, Schuchman, Shelton, Snoddy, Wilson
Instructor Bloecker
Lecturers Bouey-Yates, Baer, Bone, Bowen, Chisholm, Fox, Holbert, Montebello, Sigal, Sprague, Stodghill, Tankard, Thoms

REQUIREMENTS FOR PROSPECTIVE TEACHERS

The Teacher Education Program is designed to develop teachers who are qualified academically and professionally, and who possess the personal attributes needed for success in the teaching profession.

The Teacher Education Program serves the following categories of students:

Undergraduate students who are working toward the Bachelor of Science Degree in Education and the Virginia Collegiate Professional Certificate with endorsement at the elementary school level.

Undergraduate students who are working toward the Bachelor of Arts or Bachelor of Science Degree and the Virginia Collegiate Professional Certificate with endorsement at the secondary school level.

Students who have earned Baccalaureate degrees and who are working toward the Virginia Collegiate Professional Certificate with endorsement at the elementary or secondary school level.

Students who have earned Baccalaureate degrees and who are working toward the Master of Education Degree and the Collegiate Professional Certificate with endorsement at the elementary or secondary level. (See the Graduate Catalog for detailed information).

ADMISSION TO THE TEACHER EDUCATION PROGRAM

Admission to the Teacher Education Program is on a selective basis. Undergraduates and students holding baccalaureate degrees must be admitted to the program prior to enrollment in 400-level Education courses. Formal application for admission to the Teacher Education Program must be made by November 1 or March 15 of the semester preceding that in which the student intends to enroll in 400-level Education courses.
Admission to the Teacher Education Program is granted by the Teacher Education Committee. To be considered for admission to the Teacher Education Program, students must have completed Education 201, 202, 301 and 313 and have a grade point average of 2.300 in all courses transferred to or attempted at George Mason University. Students holding baccalaureate degrees must have an average of 2.300 in all course work attempted in earning their degrees and in work at George Mason University.

In granting admission to the Teacher Education Program, the Teacher Education Committee will give consideration to emotional balance, leadership ability, ability in oral and written expression, moral character, and freedom from disqualifying physical and health conditions. Virginia “Certification Regulations for Teachers,” stipulate in part as follows:

I. Applicant must be a citizen of the United States, must be at least eighteen years of age, and must possess good moral character.

II. 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.

A review of qualifications needed to be a teacher is conducted throughout the program. In addition, the academic record and other qualifications of each student are reviewed prior to approval for student teaching. For approval for student teaching, an overall grade point average of 2.300 is required. For students holding baccalaureate degrees, the grade point average for student teaching is computed on all course work attempted in earning the baccalaureate degree, plus all course work attempted at George Mason University. A minimal grade of “C” in Student Teaching is required to secure the recommendation of the University for certification. Applications for student teaching must be filed by May 31 for the fall semester and October 15 for the spring semester.

Students holding baccalaureate degrees who are working toward the Virginia Collegiate Professional Certificate will be required to meet the subject matter requirements specified by Virginia “Certification Regulation for Teachers.” The professional requirements are those prescribed for undergraduate students. Students in this category must agree to complete the entire sequence of Education courses, including student teaching.

TEACHING IN THE SECONDARY SCHOOLS

The following program for teaching in the secondary schools, usually grades 7 through 12, is offered:
BACHELOR OF ARTS

This program is offered in the College of Arts and Sciences with the general requirements prescribed by that College. Majors are possible in biology, chemistry, economics, English, French, German, government, history, mathematics, physics, psychology, sociology and Spanish.

The following constitutes the program for the Virginia Collegiate Professional Certificate. This program requires 131 semester hours.* Completion of this program will usually require attendance at one or more summer sessions. The courses marked with an asterisk* are not counted toward the 120 semester hours required for the Bachelor of Arts Degree. In addition to meeting the general requirements for the Bachelor of Arts Degree, the student must also meet the general education requirements for certification and the Virginia endorsement requirements. An outline of these requirements follows:

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humanities</td>
</tr>
<tr>
<td>12</td>
</tr>
<tr>
<td>English 101, 102</td>
</tr>
<tr>
<td>Social Science</td>
</tr>
<tr>
<td>12</td>
</tr>
<tr>
<td>History 121 or 122</td>
</tr>
<tr>
<td>Anthropology, Economics, Fine Arts, Geography, History, Political Science, Psychology or Sociology</td>
</tr>
<tr>
<td>Laboratory Science and Mathematics</td>
</tr>
<tr>
<td>12</td>
</tr>
<tr>
<td>(At least one course in each area.)</td>
</tr>
<tr>
<td>Electives</td>
</tr>
<tr>
<td>8</td>
</tr>
<tr>
<td>(From the areas listed above.)</td>
</tr>
<tr>
<td>Education</td>
</tr>
<tr>
<td>27</td>
</tr>
<tr>
<td>Education 201,** 202,** 301, 313, 416, 421 and 435*</td>
</tr>
<tr>
<td>Health and Physical Education</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>Health 210</td>
</tr>
<tr>
<td>*Physical Education (from 100 series)</td>
</tr>
</tbody>
</table>

* Physical Education and Education 435 do not count toward the 120 semester hours required for the Bachelor of Arts Degree.
** Required effective with 1974-75 academic year.
Virginia Teaching Field Endorsement Minimal Requirements. 12-45

(See Certification Regulations for details. The following teaching field totals include any semester-hours credits also appearing in the general degree requirements.)

<table>
<thead>
<tr>
<th>Field</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>24</td>
</tr>
<tr>
<td>Chemistry</td>
<td>24</td>
</tr>
<tr>
<td>Dramatics</td>
<td>12</td>
</tr>
<tr>
<td>Economics</td>
<td>18</td>
</tr>
<tr>
<td>English</td>
<td>30</td>
</tr>
<tr>
<td>English &amp; Dramatics</td>
<td>36</td>
</tr>
<tr>
<td>English &amp; Journalism</td>
<td>36</td>
</tr>
<tr>
<td>English &amp; Speech</td>
<td>36</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>30</td>
</tr>
<tr>
<td>General Science</td>
<td>24</td>
</tr>
<tr>
<td>Government</td>
<td>18</td>
</tr>
<tr>
<td>History</td>
<td>24</td>
</tr>
<tr>
<td>History and Social Science</td>
<td>42</td>
</tr>
<tr>
<td>Mathematics</td>
<td>27</td>
</tr>
<tr>
<td>Physics</td>
<td>20</td>
</tr>
<tr>
<td>Psychology</td>
<td>24</td>
</tr>
<tr>
<td>Sociology</td>
<td>18</td>
</tr>
<tr>
<td>Speech</td>
<td>12</td>
</tr>
</tbody>
</table>

**SAMPLE PROGRAM FOR BACHELOR OF ARTS DEGREE AND VIRGINIA COLLEGIATE PROFESSIONAL CERTIFICATE**

<table>
<thead>
<tr>
<th>Semester</th>
<th>Hours</th>
<th>Second Semester</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Art 101</td>
<td>3</td>
<td>Major Subject**</td>
<td>3</td>
</tr>
<tr>
<td>English 101</td>
<td>3</td>
<td>English 102</td>
<td>3</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>4</td>
<td>Foreign Language</td>
<td>4</td>
</tr>
<tr>
<td>Natural Science</td>
<td>4</td>
<td>Natural Science</td>
<td>4</td>
</tr>
<tr>
<td><em>Physical Ed. (100 series)</em></td>
<td>1</td>
<td>Physical Ed. (100 series)*</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td></td>
<td>15</td>
</tr>
<tr>
<td>Third Semester</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education 201</td>
<td>3</td>
<td>Education 202</td>
<td>3</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>4</td>
<td>History 121</td>
<td>3</td>
</tr>
<tr>
<td>Literature</td>
<td>3</td>
<td>Literature</td>
<td>3</td>
</tr>
<tr>
<td>Major Subject**</td>
<td>3</td>
<td>Major Subject**</td>
<td>3</td>
</tr>
<tr>
<td>Music or Philosophy</td>
<td>3</td>
<td>Mathematics</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td></td>
<td>16</td>
</tr>
</tbody>
</table>

* Physical Education and Education 435 do not count toward the 120 semester hours required for the Bachelor of Arts Degree.

** A total of 24 semester hours is shown for the major subject. To the extent that overlapping with general degree requirements apply, majors requiring more than 24 hours may be reduced. Majors requiring additional semester hours will increase the requirement for work during summer sessions.
<table>
<thead>
<tr>
<th>Fifth Semester</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anthropology, Psychology or Sociology</td>
<td>3</td>
</tr>
<tr>
<td>Education 301</td>
<td>3</td>
</tr>
<tr>
<td>Education 441</td>
<td>1</td>
</tr>
<tr>
<td>Major Subject**</td>
<td>6</td>
</tr>
<tr>
<td>Non Western Culture</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sixth Semester</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anthropology, Psychology, or Sociology</td>
<td>3</td>
</tr>
<tr>
<td>Education 313</td>
<td>3</td>
</tr>
<tr>
<td>Education 444</td>
<td>1</td>
</tr>
<tr>
<td>Major Subject**</td>
<td>6</td>
</tr>
<tr>
<td>Non Western Culture</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Seventh or Eighth Sem.</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education 416</td>
<td>3</td>
</tr>
<tr>
<td>Education 421</td>
<td>1</td>
</tr>
<tr>
<td>Education 435*</td>
<td>9</td>
</tr>
<tr>
<td>Education 444</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Seventh or Eighth Sem.</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economics 101</td>
<td>3</td>
</tr>
<tr>
<td>Health 210</td>
<td>3</td>
</tr>
<tr>
<td>Major Subject**</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>15</td>
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</table>

<table>
<thead>
<tr>
<th>Summer Sessions</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Major Subject**</td>
<td>3-20</td>
</tr>
<tr>
<td>(Depending upon Major Subject)</td>
<td></td>
</tr>
<tr>
<td>Electives</td>
<td>0-3</td>
</tr>
<tr>
<td></td>
<td>131</td>
</tr>
</tbody>
</table>

### TEACHING PHYSICAL EDUCATION

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.

During the senior year the student will complete a professional semester which will include Health 401, P.E. 470, and Education 435.

* Physical Education and Education 435 do not count toward the 120 semester hours required for the Bachelor of Arts Degree.

** A total of 24 semester hours is shown for the major subject. To the extent that overlapping with general degree requirements apply, majors requiring more than 24 hours may be reduced. Majors requiring additional semester hours will increase the requirement for work during summer sessions.
BACHELOR OF SCIENCE IN EDUCATION
Major in Health and Physical Education

Sem. Hours

I. Language Arts and Culture ........................................... 26 or 27
   a. English
      1. English Composition (101-102) .................. 6
   b. Speech—Select one ........................................ 3
      1. Principles of Effective Speaking (151)
      2. Public Speaking (152)
   Option of c or d .............................................. 8 or 9
   c. Foreign Language (8*)—Select one
      1. French, 0-8
      2. Spanish, 0-8
      3. German, 0-8
   d. Regional Cultures (9)—Select three
      1. Latin America (LAC 151)
      2. Sub-Saharan Africa (LAC 152)
      3. Asia and W. Pacific (LAC 153)
      4. North Africa & the Middle East
         (LAC 154)
   e. Literature
      1. Rdgs. in Eng. and Amer. Lit. (205, 206) 6
   f. Humanities—Select one ................................. 3
      1. Art Appreciation (101)
      2. Music Appreciation (101)

II. Social Studies ...................................................... 12-15
   a. History
      1. American (History 121, 122) ............... 6
   b. Other subjects ........................................... 9**
      1. Anthropology
      2. Economics
      3. Geography
      4. Government
      5. Sociology

III. General and Health Sciences .................................... 19
   a. Personal and Community Health
      (Health 210) ............................................. 3
   b. P.E. Activities (P.E. 101 to 140) .................. 4
   c. Mathematics .............................................. 4
   d. Laboratory Science ....................................... 8

IV. Professional Sequence: .......................................... 27
    Education 201, 202, 301, 313, 435, and .......... 21
    Physical Education 302, 470 ......................... 6

* Replace course(s) exempt with course(s) from d.
** Only 6 required here for those taking the Regional Cultures sequence.
World History may be one of the courses.
### EDUCATION 191

#### Sem. Hours

<table>
<thead>
<tr>
<th>V. Major</th>
<th>34</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health 205, 401</td>
<td>6</td>
</tr>
<tr>
<td>Physical Ed. (Additional hours from 100 series)</td>
<td>4</td>
</tr>
<tr>
<td>Physical Ed. 201, 220, 221, 222, 304, 306, 308, 460</td>
<td>24</td>
</tr>
</tbody>
</table>

#### VI. Open Electives | 3-9 |

**TOTAL MINIMUM SEMESTER HOURS** | 128 |

### SAMPLE PROGRAM IN HEALTH AND PHYSICAL EDUCATION

<table>
<thead>
<tr>
<th>Freshman Year—1st Semester</th>
<th>Freshman Year—2nd Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology 103</td>
<td>4</td>
</tr>
<tr>
<td>English 101</td>
<td>3</td>
</tr>
<tr>
<td>Health 210</td>
<td>3</td>
</tr>
<tr>
<td>History 121</td>
<td>3</td>
</tr>
<tr>
<td>Physical Ed. 100 series</td>
<td>1</td>
</tr>
<tr>
<td>Regional Culture or Foreign Lang.*</td>
<td>3-4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>17</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sophomore Year—1st Semester</th>
<th>Sophomore Year—2nd Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education 201</td>
<td>3</td>
</tr>
<tr>
<td>English 205</td>
<td>3</td>
</tr>
<tr>
<td>Health 205</td>
<td>3</td>
</tr>
<tr>
<td>Regional Culture or Soc. Studies</td>
<td>3</td>
</tr>
<tr>
<td>Physical Education 220</td>
<td>3</td>
</tr>
<tr>
<td>Physical Ed. 100 series</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>16</td>
</tr>
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<table>
<thead>
<tr>
<th>Junior Year—1st Semester</th>
<th>Junior Year—2nd Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education 301</td>
<td>3</td>
</tr>
<tr>
<td>Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>Physical Education 105</td>
<td>1</td>
</tr>
<tr>
<td>Physical Education 107</td>
<td>1</td>
</tr>
<tr>
<td>Physical Education 302</td>
<td>3</td>
</tr>
<tr>
<td>Physical Education 306</td>
<td>3</td>
</tr>
<tr>
<td>Social Studies</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>17</td>
</tr>
</tbody>
</table>

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* Replace course(s) exempt with course(s) from d.
Senior Year—1st or 2nd Sem. | Senior Year—Professional Sem.
---|---
Education 444 | Education 435
Physical Education 308 | Education 444
Physical Education 406 | Health 401
Physical Education 460 | Physical Education
Social Studies or Elective* | —
Elective | 16
---|---

Total Hours | 128

TEACHING IN ELEMENTARY SCHOOLS

Programs in Early Childhood Education (Nursery School, Kindergarten, Grades 1-3) and in Elementary Education (Grades 4-7) are offered. These programs require completion of 128 semester hours.

One semester of the senior year will be a professional semester during which Education 407, 419, and 431, or Education 408, 420 and 432 will be completed. The student will need to decide prior to enrollment in Education 401, or 402, whether he desires to be certified at the Early Childhood level or at the Elementary level.

The following are the programs leading to the awarding of the Bachelor of Science Degree with a Major in Early Childhood Education or in Elementary Education and the Virginia Collegiate Professional Certificate with endorsement at the Nursery School-Kindergarten—Grade 3 level, or the Grade 4-7 level.

BACHELOR OF SCIENCE IN EDUCATION

**Major in Early Childhood or Elementary Education**

**Req. Semester Hrs.**

I. Language Arts and Culture | 32 or 33
---|---
a. English
1. English Composition (101-102) | 6
b. Speech—Select one
1. Principles of Effective Speaking (Sp 151)
2. Public Speaking (Sp 152)
3. Interpretive Reading (LAC 355)
Option of c or d | 8 or 9
c. Foreign Language (8**)—Select one
1. French, 0-8
2. Spanish, 0-8
3. German, 0-8
d. Regional Cultures—Select three | 9
1. Latin America (LAC 151)

* Replace course(s) exempt with course(s) from d.

** Only 15 required in Social Studies for those taking the Regional Cultures sequence.
2. Sub-Sahara Africa (LAC 152)
3. Asia and W. Pacific (LAC 153)
4. North Africa and the Middle East (LAC 154)

c. Literature ......................................................... 9
   1. Rdgs in Eng. and Amer. Lit. (205, 206) ..................... 6
   2. Children's Literature (LAC 305) .......................... 3

d. Humanities ......................................................... 6
   1. Art for the Elem. School (LAC 273) ......................... 3
   2. Music for the Elem. School (LAC 182) ..................... 3

II. Social Studies ..................................................... 18*
   a. History
      1. American (History 121, 122) .................. 6
      2. World (History 101) ............................ 3
   b. Other subjects
      1. Anthropology .......................................... 3
      2. Economics .................................. 3
      3. Geography .................................. 3
      4. Government
      5. Sociology

III. General and Health Sciences .................................. 21
   a. Personal and Community Health (Health 210) .............. 3
   b. P.E. Activities (P.E. 101 to 140) .................. 4
   c. Mathematics (GHS 371, 372) .......................... 6
   d. Laboratory Science .................................. 8

IV. Professional (Major) Sequence ................................. 36
   Early Childhood Education: 201, 202, 301, 313, 401, 403, 407, 419, 431, and Health 301 36
   or
   Elementary Education 201, 202, 301, 313, 402, 404, 408, 420, 432, and Health 301 36

V. Open Electives** ................................................ 20 or 23
   TOTAL MINIMUM SEMESTER HOURS .................. 128

* Only 15 required in Social Studies for those taking the Regional Cultures sequence.

** Open Electives: Early Childhood or Elementary Education majors should plan the utilization of the available electives in such a way that his competence will be strengthened. This can be done by planning a program in a subject area such as foreign language, English, social studies, music, art, science, library science, or by electing courses in instructional media and graduate courses open to qualified undergraduates. (See page 194 for course numbers) The substitution of open electives for the elective concentration is effective immediately and applies to all students currently enrolled in the early childhood and elementary education programs.
## SAMPLE PROGRAM FOR EARLY CHILDHOOD OR ELEMENTARY EDUCATION MAJOR

### Freshman Year—1st Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Biology 103</td>
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<tr>
<td>English 101</td>
<td>3</td>
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<tr>
<td>Geography 101 or 102</td>
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<tr>
<td>History 101</td>
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</tr>
<tr>
<td>Physical Ed. (100 series)</td>
<td>0-1</td>
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<tr>
<td>Regional Culture or For. Lang.</td>
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### Freshman Year—2nd Semester

<table>
<thead>
<tr>
<th>Course</th>
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<tr>
<td>Biology 104</td>
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<tr>
<td>Economics 101</td>
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<tr>
<td>English 102</td>
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<tr>
<td>History 121</td>
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<tr>
<td>Physical Ed. (100 series)</td>
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<tr>
<td>Regional Culture or For. Lang.</td>
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</table>

### Sophomore Year—1st Semester

<table>
<thead>
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<th>Course</th>
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<tbody>
<tr>
<td>Education 201</td>
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<tr>
<td>English 205</td>
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</tr>
<tr>
<td>History 122</td>
<td>3</td>
</tr>
<tr>
<td>LAC 273</td>
<td>3</td>
</tr>
<tr>
<td>Physical Ed. (100 series)</td>
<td>1</td>
</tr>
<tr>
<td>Elective</td>
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<td></td>
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### Sophomore Year—2nd Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Education 202</td>
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<td>Education 301</td>
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<tr>
<td>English 206</td>
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<tr>
<td>Elective</td>
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</table>

### Junior Year—1st Semester

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>Education 313</td>
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<tr>
<td>Education 444</td>
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<tr>
<td>Health 210</td>
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</tr>
<tr>
<td>LAC 305</td>
<td>3</td>
</tr>
<tr>
<td>LAC 355 or Speech 151 or 152</td>
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</tr>
<tr>
<td>GHS 371</td>
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<tr>
<td>Physical Ed. (100 series)</td>
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### Junior Year—2nd Semester

<table>
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<th>Course</th>
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<td>Education 401 or 402</td>
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<tr>
<td>Education 403 or 404</td>
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<tr>
<td>Health 301</td>
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<tr>
<td>GHS 372</td>
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</tr>
<tr>
<td>Physical Ed. (100 series)</td>
<td>0-1</td>
</tr>
<tr>
<td>Elective</td>
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### Senior Year—1st or 2nd Sem.

<table>
<thead>
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<th>Course</th>
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<td>Education 444</td>
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<td>Electives</td>
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<tr>
<td>Regional Culture</td>
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<tr>
<td></td>
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</table>

### Professional Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education 407 or 408</td>
<td>3</td>
</tr>
<tr>
<td>Education 419 or 420</td>
<td>3</td>
</tr>
<tr>
<td>Education 431 or 432</td>
<td>9</td>
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<tr>
<td>Education 444</td>
<td>1</td>
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<td></td>
<td>16</td>
</tr>
</tbody>
</table>

Total Hours: 128

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*[http://catalog.gmu.edu](http://catalog.gmu.edu)*
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 are open only to those students who have been admitted to the Teacher Education Program. Certain courses in the 400 series may be taken for graduate credit by students admitted to a graduate program. Students may not receive credit for more than one of the comparable courses relating to Early Childhood and the Intermediate grades. For example, students taking Education 401 may not receive credit for Education 402.

Six semester hours of work in graduate education courses may be elected. This work will be in addition to undergraduate requirements in education courses. The prerequisites for the graduate courses elected must be satisfied. The following graduate courses may be elected by undergraduates: Education 501, 502, 503, 505, 525, 526, 527, 533, 558, 559, 561, 562, 563, 564, 565, 601, 605, and 625. See the Graduate Bulletin for course descriptions.

201, 202: HUMAN GROWTH AND DEVELOPMENT. [3, 3]
Designed to acquaint prospective teachers with the area of human growth and development with emphasis on childhood and adolescence. Included are studies of intelligence, physical, social, and emotional development emphasizing the underlying causes of behavior. The behavioral characteristics of different age levels, individual differences, and methods of adjustment are considered. Field experiences in public schools are required.

301: FOUNDATIONS OF EDUCATION. [3]
Prerequisite: Education 201, 202. The historical and philosophical 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 to include current 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: Education 201, 202. Designed to acquaint the prospective teacher with the principles of psychology and their application to teaching. The various aspects of the learning process, individual differences, and adjustment are considered. Emphasis is placed on evaluation of pupil progress, development of personality and attitudes, and motivation. Field experiences in public schools are required.
401: TEACHING METHODS AT EARLY CHILDHOOD LEVELS. [3]
Prerequisites: Education 301 and 313. The organization and conduct of learning experiences provided children in nursery school, kindergarten and primary grades are considered. Emphasis is placed on a balance of activities during the school day, developing an understanding of the approaches used in teaching, unit and lesson planning. Major emphasis is placed on the teaching of art and the social studies. Field experiences in public schools are required.

402: TEACHING METHODS IN THE INTERMEDIATE GRADES. [3]
Prerequisites: Education 301 and 313. Deals with the organization and direction of learning experiences provided for children in the intermediate grades. Emphasis is placed on a balancing of activities during the school day, developing and understanding of the approaches used in teaching, and unit and lesson planning. Major emphasis is placed on the teaching of art and the social studies. Field experiences in public schools are required.

403: DEVELOPMENTAL READING FOR EARLY CHILDHOOD LEVELS. [3]
Prerequisite: Education 401. Corequisite LAC 305. Reading 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 the nursery school, kindergarten, and grades 1, 2, and 3 levels. Field experiences in public schools are required.

404: DEVELOPMENTAL READING IN THE INTERMEDIATE GRADES. [3]
Prerequisite: Education 402. Corequisite LAC 305. Reading 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 the intermediate grade level, grades 4 through 7. Field experiences in public schools are required.

407: DIAGNOSTIC READING AND LANGUAGE ARTS FOR EARLY CHILDHOOD LEVELS. [3]
Prerequisites: Education 403 and LAC 305. A study of the theory, methods, practices and materials involved in the teaching of communication skills with emphasis on the diagnostic teaching of read-
ing to include techniques for evaluation of reading progress, difficulties experienced by children in learning to read, diagnostic techniques available to the classroom teachers, differentiation of instruction to fit individual capabilities, and corrective methods. Emphasis is placed on reading at the nursery school, kindergarten, and grade 1, 2, and 3 levels. Field experiences in public schools are required.

408: DIAGNOSTIC READING AND LANGUAGE ARTS IN THE INTERMEDIATE GRADES. [3]
Prerequisites: Education 404 and LAC 305. A study of theory, methods, practices and materials involved in the teaching of communication skills with emphasis on the diagnostic teaching of reading to include 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 intermediate grade level, grades 4 through 7. Field experiences in public schools are required.

*416: TEACHING METHODS IN THE SECONDARY SCHOOLS. [3]
Prerequisite: Education 313. Corequisite: Education 421. A study of the theories, practices, and methods involved in teaching. Emphasis is placed on the development of course, unit, and lesson plan objectives; 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.

*419: TEACHING OF SCIENCE AT EARLY CHILDHOOD LEVELS. [3]
Prerequisite: Education 403. Corequisite: Education 407. A study of the theory, 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 IN THE INTERMEDIATE GRADES. [3]
Prerequisite: Education 404. Corequisite: Education 408. A study of the theories, practices, methods, and materials involved. Emphasis is placed on teaching broad concepts in the areas of earth-space science, chemistry, and physical science. Field experiences in the public schools are required.

* Taught as a block of 15 semester-hours during the professional semester.
198 EDUCATION

*421: INSTRUCTIONAL MEDIA. [3]
Prerequisite: Education 313. Corequisite: Education 416. 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 audio-visual 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.

*431: STUDENT TEACHING AT EARLY CHILDHOOD LEVELS. [9]
Prerequisites: Senior standing, an overall grade point average of 2.300, and Education 407 and 419. A full-time program of ten weeks' duration in a public school involving the study of pupils, observation of teaching, preparation of instructional materials, teaching, and participation in other school activities as required or needed. Attendance at periodic seminars is required.

*432: STUDENT TEACHING IN THE INTERMEDIATE GRADES. [9]
Same as *431 except course prerequisites which are 408 and 420.

**435: STUDENT TEACHING IN THE SECONDARY SCHOOL. [9]
Same as *431 except course prerequisites which are 416 and 421.

440: INDEPENDENT STUDY IN EDUCATION. [2 or 3]
Prerequisite: Admission to Teacher Education Program and permission of Department Chairman. By arrangement. 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 Science; 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: DIRECTED FIELD EXPERIENCES. [1]
Prerequisite: Permission of Director of Field Experiences. Provides an administrative means for students taking professional education courses to be given credit for field experience activities conducted in conjunction with education courses. Courses with field experience activities include Education 201, 202, 301, 313, 401, 402, 403, 404, 407, 408, 416, 419, 420, and 421. Registration must be concurrent with or subsequent to registration for courses requiring field

* Taught as a block of 15 semester-hours during the professional semester.
** Not counted within the 120 hours required for the B.A. Degree for students entering September, 1971 and after.
experiences. One semester hour of credit is given for each 30 hours of field experiences successfully completed. May be repeated three times. Credit is without grade.

HEALTH

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 lectures; three laboratory hours.

210: PERSONAL AND COMMUNITY HEALTH. [3]
Designed to provide the prospective teacher with the information needed to function effectively in a public school. Emphasis is placed on health problems involving mental illness, alcohol, tobacco, drugs, venereal disease, communicable diseases, and accidents. Attention is also given to medical care, physical fitness, nutrition, weight control, and community and world health problems.

301: TEACHING HEALTH AND PHYSICAL EDUCATION IN THE ELEMENTARY SCHOOL. [3]
Prerequisites: Health 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: Health 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 curricula 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

Activity Courses
(101-161)

A variety of activities taught for physical conditioning and recreational values. Instruction in the techniques, rules, and strategy of play in three hours of activity each week. Cannot be counted within the hours for the B.S. degree in Business Administration or within the hours required for a degree in the College of Arts and Sciences.

101: SOCCER AND VOLLEYBALL. [1] For Men

105: AEROBICS, BASIC CONDITIONING, CROSS COUNTRY AND TRACK. [1]

106: BEGINNING GYMNASTICS AND SOFTBALL. [1]

107: FOLK, SQUARE AND SOCIAL DANCE. [1]

111: BASKETBALL AND SOCCER. [1] For Women

114: SPEEDBALL AND SOFTBALL. [1] For Women

115: RECREATION SKILLS. [1]


117: BEGINNING IN INTERMEDIATE SWIMMING. [1]

118: AQUATICS II (SENIOR LIFE SAVING). [1]

121: FLAG FOOTBALL AND BASKETBALL. [1] For Men

123: TENNIS. [1] For Men


131: VOLLEYBALL AND FIELD HOCKEY. [1] For Women

133: TENNIS. [1] For Women

140: GOLF. [1] Co-Educational, (A student fee is collected.)

141: BEGINNING MODERN DANCE. [1] Co-Educational

151: BADMINTON AND TENNIS. [1] Co-Educational

161: ARCHERY AND GOLF. [1] Co-Educational
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.

205: FUNDAMENTALS OF MOVEMENT. [1]
Elements of movement and the study and practice of basic movements as the foundation upon which the more specialized skills are built. Emphasis is placed upon developing the student's ability in observing and analyzing movement and movement patterns. Three class hours.

220-221: ANATOMY AND PHYSIOLOGY. [3, 3]
Prerequisites: Completion of laboratory science requirement. Completion of Physical Education 220 before Physical Education 221, permission of Instructor. The course deals with the integration of knowledge pertaining to human anatomy and physiology. Emphasis is given to specific knowledge concerning the interaction between the skelato-muscular, metabolic, neurological and cardiopulmonary function of the body. Three lecture and one hour laboratory.

222: KINESIOLOGY. [3]
Prerequisite: Physical Education 220 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. Three hours lecture and an hour laboratory. Field experiences may be required.

302: PHYSICAL EDUCATION FOR THE ELEMENTARY SCHOOL. [3]
Prerequisites: Physical Education 202, 203. Basic philosophy, characteristics, content and method of the program in the elementary school. How to plan and organize the program; elements in a balanced program, facilities, equipment and evaluation. Field experiences in public schools are required.

304: SPORT, CULTURE AND SOCIETY. [3]
Prerequisite: Physical Education 201 or permission of instructor. Deals with the historical and cultural background of sport and dance from the following viewpoints: religion and mythology, politics and nationalism, health and welfare, sport as a social institution.

306: PSYCHOMOTOR LEARNING. [3]
Prerequisites: Completion of Physical Education 220-221, Education 202 or permission of the instructor. The study of one of man's
three educational domains. The content of the course will empha­
size psychomotor learning, perceptual motor skill, movement be­
havior, learning theory motivation, personality and human perform­
ance. Field experiences may be required.

308: DEVELOPMENTAL PHYSICAL EDUCATION. [3]
Prerequisite: Completion of laboratory science requirement or per­
mission of instructor. This course will be a synthesis of the develop­
mental processes of the human as it relates to movement and exer­
cise. An in-depth study of various chronic or functional inadequa­
cies which may interfere with the individual's successful participa­
tion will be included. Field experiences may be required.

361: TECHNIQUES AND TEACHING INDIVIDUAL
SPORTS. [1]
Prerequisite: Two semesters of Physical Education Activities in
Individual Sports. This course is a study of techniques, skills and or­
ganization involved in teaching individual sports. Fall: tennis and
badminton. Spring: archery and golf.

406: RECREATION AND OUTDOOR EDUCATION. [3]
Prerequisite: Senior Year or permission of the instructor. Tech­
niques of recreational leadership: community resources, supervision
and evaluation methods of converting leisure into useful and cul­
tural 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 lecture
hours. Three laboratory hours. Special Fee $20.00.

460: MANAGEMENT AND EVALUATION IN PHYSICAL
EDUCATION. [3]
Prerequisites: Physical Education 201, 302, 304, 306, 308. The course
deals with management and evaluation of the total Physical Educa­
tion Program in elementary and secondary schools. Administrative
principles, organizational details and evaluation procedures are
viewed in terms of Health and Physical Education classes, Intra­
mural sports and Athletics.

470: PHYSICAL EDUCATION CURRICULUM AND METH­
ODS IN THE SECONDARY SCHOOL. [3]
Prerequisite: Physical Education 302. Theory and practice of the
professional aspects of physical education. Included are methods
and materials, audio-visual aids, safety precautions, evaluation and
other topics related to the teaching and guidance of youth in physical
education activities. Field experiences in public schools are re­
quired.
EDUCATION 203

LIBRARY SCIENCE

Courses in Library Science are offered to enable students to qualify as school librarians in addition to their achieving certification at the elementary or secondary school level. Those students electing to qualify as school librarians in addition to their normal program will spend a portion of their student teaching period in directed library practice. The following are the courses required for certification as a school librarian: Education 421, and 431 or 432 or 435; and LAC 305. Library Science 401, 402, 403, and 404.

401: ADOLESCENT AND ADULT LITERATURE. [3]
Prerequisite: None. Adolescent and adult literature including the study of historical and recent developments, types, principles of critical analysis, and usage in the junior and senior high schools.

402: REFERENCE WORK AND BIBLIOGRAPHY. [3]
Prerequisite: None. Reference and bibliographic skills for elementary and secondary school librarians.

403: TECHNICAL PROCESSING FOR SCHOOL LIBRARIES. [3]
Prerequisite: Admission to the Teacher Education Program. Techniques of cataloging and classification for elementary and secondary school librarians.

404: ADMINISTRATION OF SCHOOL LIBRARIES. [3]
Prerequisites: Library Science 401, 402, and 403. Problems of administering an elementary or secondary school library. Includes organizational plans, teaching duties, finances, reports, and equipping a school library.

405: PRACTICUM IN THE SCHOOL LIBRARY/MEDIA CENTER. [3]
Prerequisite: Admission to the Teacher Education Program or possession of a teaching certificate. Library Science 401, 402, 403, 404 and permission of the instructor. Supervised practice in the school library/media center.
DEPARTMENT OF GENERAL STUDIES

Associate Professors J. Smith (Chairman), Ellert, Hill
Assistant Professor Ku
Lecturers Hoyer, McDill, Montebello

OBJECTIVE

There is no major in this department. The purpose of this department is to house general education courses developed primarily by and for the College of Professional Studies, academic area offerings adapted for the elementary school level curriculum content, academic area courses adapted for special professional needs and unsuitable in the traditional liberal arts framework, and advanced transfer-credit blocks for non-traditional but non-the-less academic-related lectures and practical experiences directly and clearly professional in nature. The department also is the agency coordinating the service course offerings by the other Colleges for the College of Professional Studies general education core.

The courses, whether “service” in nature from elsewhere or listed in this department, are divided into three areas whose titles describe the nature of appropriate content within their respective areas: language arts and culture, social studies, and general and health sciences.

GENERAL STUDY COURSES

LANGUAGE ARTS AND CULTURE

Art

LAC 273: ART FOR THE ELEMENTARY SCHOOL. [3]
Prerequisite: Education 201. Theory, techniques and materials in art structure related to the personal growth of children. Class meets six hours per week.

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 182: MUSIC FOR THE ELEMENTARY SCHOOL. [3]
Study of notational, tonal, and rhythmic aspects of music for the elementary school. Both participatory and listening activities will be developed, practiced and observed. *Class meets five hours per week.*

Regional Cultures

LAC 151: LATIN AMERICA. [3]
Study of life in this region as it is today with emphasis on the cultural (art, music, philosophy) features and the practical (governmental, economic, and sociological) aspects plus an overview of essential historical background.

LAC 152: SUB-SAHARA AFRICA. [3]
Study of life in this region as it is today with emphasis on the cultural (art, music, philosophy) features and the practical (governmental, economic, and sociological) aspects plus an overview of essential historical background.

Study of life in this region as it is today with emphasis on the cultural (art, music, philosophy) features and the practical (governmental, economic, and sociological) aspects plus an overview of essential historical background.

LAC 154: NORTH AFRICA AND THE MIDDLE EAST. [3]
Study of life in this region as it is today with emphasis on the cultural (art, music, philosophy) features and the practical (governmental, economic, and sociological) aspects plus an overview of essential historical background.

Speech

LAC 355: ORAL INTERPRETATION IN THE ELEMENTARY SCHOOL. [3]
*Pre- or corequisite: LAC 305.* Studying the principles involved in the interpretation of the written word in its intellectual, emotional, and aesthetic entirety. Practice with prose and poetry utilizing the literature appropriate to kindergarten and elementary school children.

*Philosophy, literature, religion, et cetera (see standard A&S offerings scheduled for CPS students).*
GENERAL STUDIES

SOCIAL STUDIES


GENERAL AND HEALTH SCIENCES

Mathematics

GHS 371, 372: MATHEMATICS FOR THE ELEMENTARY SCHOOL I, II. [3, 3]

Prerequisite: Forty-five semester-hours of college credit. Concepts and theories underlying elementary school mathematics.

Biology, chemistry, physics, et cetera (see standard A&S offerings scheduled for CPS students).
University Directors

The Rector and Visitors
Administration
Faculty
Retired Faculty
Supporting Services
Student Government Officers
George Mason University
Foundation, Inc.
Patriot Educational Foundation, Inc.
Alumni Association of
George Mason University
Awards
208 THE RECTOR AND VISITORS

The Rector and Visitors

John C. Wood

Rector

Arthur Windsor Arundel.........................McLean
Elias Blake, Jr.....................................Reston
Harriet F. Bradley.................................McLean
Albert Vickers Bryan, Jr.........................Alexandria
Preston C. Caruthers..............................Arlington
A. George Cook, III...............................Alexandria
Alvin E. Conner, M.D.............................Manassas
John J. Corson.....................................Arlington
William C. Frogale.................................Falls Church
Carol M. Griffie..................................Fairfax
John T. Hazel, Jr................................Fairfax
Warren Joseph Pace...............................Falls Church
Lutrelle Fleming Parker, Sr.......................Arlington
Lester G. Sturgill................................Leesburg
Currell Hunton Tiffany.........................Warrenton
ADMINISTRATION 209

Administration

PRESIDENT’S OFFICE

Lorin A. Thompson, B.A., M.A., Ph.D. …………… President—1966 to June, 1973
Vergil Homer Dykstra, B.A., M.A., Ph.D. …… President—July, 1973

ACADEMIC AFFAIRS

Robert Charles Krug, B.S., M.S., Ph.D. …………… Provost
Leon Estel Boothe, B.S., M.A., Ph.D. ………….. Dean of the College of Arts and Sciences
Clayton Moss Schindler, B.A., M.S., Ph.D. …… Dean of the College of Professional Studies
William Scott Willis, B.A., M.A., Doct. Univ. (Paris) … Dean of the Graduate School
William Cargill Johnston, B.A., M.S., Ph.D. ……… Dean of the Summer Session

BUSINESS OFFICE

Henry Patteson Adams, B.S. ………………………. Comptroller
John Robert Hiltenbrand, B.S. …………………….. Director of Personnel

DEVELOPMENT AND INFORMATION

John William Gephart, B.S., M.S.B.A. …… Director of Development
William Moore McDowell, B.A., M.A. …… Director of Information Services

STUDENT AFFAIRS

Robert Amrine Turner, B.S., M.A.T. …………… Dean of Students
Ellis Clinton Gedney, B.A., M.S., Ed.D. ………. Director of Financial Aid and Placement
Kenneth Eugene Bumgarner, B.S., M.A. ………. Director of The University Union

ADMISSION AND RECORDS

Louis John Aebrischer, B.S., M.S., Ed.S. ……. Director of Admissions
Lewis Carson Jones, B.A., M.S.T. …………… Assistant Director of Admissions
REGISTRAR

Michael James McDermott, Jr., A.B., Ph.L................Registrar

PLANNING AND RESEARCH

Joseph Ingram Gurfein, B.S., M.S...................Director of Planning
John Patrick Sullivan, B.S., M.A..Director of Institutional Analysis

PUBLICATIONS

John William Gephart, B.S., M.S.B.A......Director of Publications

COUNSELING

Walter Jennings Moretz, Jr., B.A., B.D., Ph.D........Director of University Counseling and Psychological Services Center

CHARLES ROGERS FENWICK LIBRARY

Patrick Joseph Larkin, A.B., M.S.L.S........Library Director
Catherine Ann Belter, B.A., M.L.S..............Reference Librarian
Shirley R. Glazener, B.A., M.L.S......Reference and Government Documents Librarian
Carol Cantlon Henderson, B.A., M.S.L.S........Reference and Circulation Librarian
Alana Wang Ho, B.A., M.S......................Catalog Librarian
Mary Eileen Hood, B.A., M.L...................Acquisitions Librarian
Agnes Liu Mao, B.L., M.L.S...................Catalog Librarian
Patrick Francis McIntyre, B.A., M.L.S........Reference and Periodicals Librarian
Patricia Ann Neighbarger..................Catalog Librarian
Richard Bennett O'Keefe, B.A., M.S.L.S........Assistant Library Director

ALUMNI RELATIONS

John William Gephart, B.S., M.S.B.A...........Director of Alumni Relations
Faculty*

ADAMS, Henry Patteson, Professor, Comptroller, B.S., United States Naval Academy, 1939.

AEBISCHER, Louis John, Associate Professor of Education, Director of Admissions. B.S., Syracuse University, 1936; M.S., Syracuse University, 1947; Ed.S., George Washington University, 1971.

AGUERA, Victorio Garcia, Assistant Professor of Spanish. B.S.T., Colegio Mayor Teologico Hispano-americano, 1958; M.A., Catholic University, 1970; Ph.D., Catholic University, 1971.

ALI, Monica Marie, Lecturer in Chemistry. A.B., Emanuel College, 1963; M.S., Georgetown University, 1967; Ph.D., Georgetown University, 1971.


ANDREWS, Alice Chandler, Lecturer in Geography. A.B., University of Georgia, 1949; M.A., Northwestern University, 1950.

ANDRYKOVITCH, George Eugene, Assistant Professor of Biology. B.S., University of Pittsburgh, 1962; M.S., University of Pittsburgh, 1965; Ph.D., University of Maryland, 1968.


AUSTIN, Virginia LaRose, Assistant Professor of Education, B.S.M., DePauw University, 1931; M.Ed., University of Maryland, 1954.


BAER, Fredrica Biedermann, Lecturer in Education. B.S., Towson State College, 1942; M.A., George Washington University, 1971.


* This list is a record of the 1972-73 faculty.
BINDEL, Jr., Henry Joseph, Associate Professor of Education, Executive Secretary, Department of Education. B.S., Eastern Kentucky University, 1949; M.A., Eastern Kentucky University, 1951; Ed.D., University of Maryland, 1971.


BLOCH, Howard Ruben, Associate Professor of Economics. A.B., Duke University, 1958; Ph.D., Princeton University, 1964.

BLOECKER, Jr., Victor, Instructor in Education. B.S., University of Pennsylvania, 1942; M.A., University of Southern California, 1950.

BONE, Gerald Patrick, Lecturer in Education. A.B., St. Louis University, 1955; A.M., St. Louis University, 1956; S.T.B., St. Louis University, 1964.

BOOTHE, Leon Estel, Associate Professor of History, Dean of the College of Arts and Sciences. B.S., University of Missouri, 1960; M.A., University of Missouri, 1962; Ph.D., University of Illinois, 1966.


BRADLEY, Ted Ray, Assistant Professor of Biology. B.S., Rollins College, 1962; M.A., University of North Carolina, 1966; Ph.D., University of North Carolina, 1968.

BROOKS, Nancy Cook, Assistant Professor of Spanish. A.B., University of Kansas, 1947; M.A., University of Kansas, 1948.

BROWN, Lorraine Anne, Assistant Professor of English. B.A., University of Michigan, 1952; M.A., University of Michigan, 1961; Ph.D., University of Maryland, 1968.

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.


BUFFARDI, Louis Carl, Assistant Professor of Psychology. A.B., University of Rochester, 1964; M.A., Fordham University, 1966; Ph.D., Kansas State University, 1970.

BUFILL, 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, 1967.

CABELL, Mary Katherine, Associate Professor of Mathematics, B.A., University of Tennessee, 1955; M.A., University of Virginia, 1957; Ph.D., University of Virginia, 1960.

CANNAVALE, Jr., Frank John, Assistant Professor of Sociology. A.B., Rutgers University, 1964; A.M., University of Pennsylvania, 1967; Ph.D., University of Pennsylvania, 1971.


CASSARA, Ernest, Professor of History, Chairman of Department of History. A.B., Tufts College, 1952; B.D., Tufts University, 1954; Ph.D., Boston University, 1957.


CHAMBERS, Barbara Fromm, Assistant Professor of Mathematics. B.S., University of Alabama, 1962; M.A., University of Alabama, 1964; Ph.D., University of Alabama, 1969.

CHILDRESS, Jr., Joseph Atkins, Assistant Professor of Mathematics. B.S., Virginia Polytechnic Institute, 1964; M.A., University of Georgia, 1967; Ph.D., University of Georgia, 1970.


CHUNG, Jae Wan, Assistant Professor of Economics. B.C., Seoul National University, 1963; M.C., Seoul National University, 1965; M.A., State University of New York, 1969; Ph.D., New York University, 1972.

CHURCHMAN, Anthony Charles, Acting Assistant Professor of English. B.A., University of Western Ontario, 1964; M.A., University of Western Ontario, 1965.

CLARKE, Robert Lewis, Lecturer in History. B.A., St. Augustines College, 1942; M.A., University of Wisconsin, 1948.

COHEN, Edmund David, Assistant Professor of Psychology. A.B., George Washington University, 1965; M.S., Case Western Reserve University, 1967; Ph.D., Case Western Reserve University, 1968.

COLE, Hubert Merrill, Associate Professor of Mathematics. B.S., United States Military Academy, 1925; M.S., New York University, 1956.


CORDERO, Anne Deing, Assistant Professor of French. Dipl, Dolmetscher, University of Mainz, 1955; M.A., University of Florida, 1957; Ph.D., George Washington University, 1968.

COZZENS, Robert Francis, Associate Professor of Chemistry. B.S., University of Virginia, 1963; Ph.D., University of Virginia, 1966.


CZARSTY, Steven Lawrence, Instructor in Business Administration, B.S., University of Hartford, 1968; M.B.A., University of Connecticut, 1969.

DERR, Laura Muntz, Instructor in English. B.A., University of Kentucky, 1968; M.A., University of Kentucky, 1969.


DOREY, Frederick James, Assistant Professor of Mathematics. 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.


DUFFNER, Margaret Cain, Instructor in Speech. A.B., MacMurray College, 1940; M.A., Northwestern University, 1943.

DUMEZ, Elizabeth Anne, Assistant Professor of Social Welfare. A.B., University of Kentucky, 1962; M.S.W., The Catholic University of America, 1966.


DZAMA, Mary Ann, Assistant Professor of Education. B.A., Carlow College, 1964; M.Ed., Duquesne University, 1968; D.Ed., University of Virginia, 1972.
EARLY, Jr., Stephen Tyree, Professor of Political Science, Chairman of Department of Social Sciences. B.A., University of Virginia, 1948; M.A., University of Virginia, 1950; Ph.D., University of Virginia, 1954.


EAVES, Robert Wendell, Professor of Education. A.B., University of North Carolina, 1928; M.A., George Washington University, 1933; Ed.D., George Washington University, 1940.


ELDER, Elaine Carolyn, Assistant Professor of Biology. B.A., Ursuline College, 1963; Ph.D., Georgetown University, 1970.


ELSTUN, Esther Nies, Associate Professor of German, Chairman of Department of Foreign Languages. B.A., The Colorado College, 1960; M.A., Rice University, 1964; Ph.D., Rice University, 1969.

EMSLEY, Michael Gordon, Professor of Biology, Chairman of Department of Biology. B.Sc., Imperial College of Science and Technology, 1953; A.R.C.S. Associateship of Royal College of Science, 1953; Ph.D., University of London, 1964.

ERNST, Carl Henry, Associate Professor of Biology. B.S., Millersville State College, 1960; M.Ed., West Chester State College, 1963; Ph.D., University of Kentucky, 1969.

EVANS, Arlette Raymonde, Assistant Professor of French. B.A., University of Algiers, 1941; M.S., Georgetown University, 1965.

EVANS, Jr., William Benjamin, Associate Professor of Education. B.S., University of Maryland, 1940; M.A., Teachers College, Columbia University, 1946; Ed.D., George Washington University, 1960.


FEINSTEIN, Hyman Israel, Associate Professor of Chemistry. A.B., University of Michigan, 1930; M.A., Columbia University, 1932.
FLETCHER, James John, Acting Assistant Professor of Philosophy. A.B., Iona College, 1963; M.A., Marquette University, 1966.

FLINN, Jane Margaret, Lecturer in Physics. B.A., Oxford University, 1960; M.S., University of California, Los Angeles, 1962; Ph.D., Catholic University, 1969.

FONT, Maria Teresa, Associate Professor of Spanish. Licenciado en Filosofía y Letras, Universidad de Oriente, 1960; Ph.D., University of Maryland, 1969.


FRYE, Larry Duane, Assistant Professor of Biology. B.S., Marietta College, 1965; Ph.D., Johns Hopkins University, 1969.

GALLEHR, Donald Raymond, Instructor in English. B.A., St. Bonaventure University, 1964; M.A., Fordham University, 1966.

GARSON, Helen Sylvia, Associate Professor of English. A.B., George Washington University, 1946; M.A., University of Georgia, 1947; Ph.D., University of Maryland, 1967.

GEDNEY, Ellis Clinton, Assistant Professor of Education; Director of Placement and Financial Aid. B.A., Denison University, 1963; M.S., Yeshiva University, 1965; Ed.D., University of Virginia, 1972.

GEPHART, John William, Associate Professor, Director of Development. B.S., University of Maryland, 1967; M.S.B.A., George Washington University, 1967.


GIBSON, Margaret Ferguson, Instructor in English. B.A., Hollins College, 1966; M.A., University of Virginia, 1967.

GILSTRAP, Robert Lawrence, Associate Professor of Education. B.S., North Texas State University, 1954; M.Ed., North Texas State University, 1960; Ed.D., George Peabody College for Teachers, 1963.


GLEISSNER, Richard Anthony, Assistant Professor of History. B.S., University of Wisconsin, 1958; M.A., Marquette University, 1959; Ph.D., University of Maryland, 1968.

GODBOLD, John Walter, Assistant Professor of Government. B.A., Millsaps College, 1939; M.P.A., St. Louis University, 1959.


GRAS, Vernon Walter, Associate Professor of English. M.A., University of Chicago, 1952; Ph.D., University of Chicago, 1967.


GREER, William Louis, Assistant Professor of Chemistry. B.A., Vanderbilt University, 1965; Ph.D., University of Chicago, 1969.


GURFEIN, Joseph Ingram, Associate Professor of Engineering, Director of Planning. B.S., United States Military Academy, 1941; M.Sc., Harvard University, 1947.

HARDWICK, Robert Sterling, Acting Assistant Professor of Sociology. B.S., Nyack College, 1959; M.A., University of Minnesota, 1963.

HAWKES, Jr., Robert Thomas, Assistant Professor of History, Assistant Director, University of Virginia Center for Continuing Education. B.A., Randolph-Macon College, 1964; M.A., University of Virginia, 1967.

HAYN, Rolf, Associate Professor of Economics. A.B., Indiana University, 1944; A.M., Indiana University, 1948; Ph.D., University of Wisconsin, 1954.

HAYS, Davis Addison, Instructor in Biology. B.S., Duke University, 1965; M.S., Yale University, 1971.
HAZERA, Lydia DeLeon, Assistant Professor of Spanish. B.A., University of Colorado, 1945; A.M., University of Michigan, 1949; Ph.D., George Washington University, 1971.


HENDERSON, Carol Cantlon, Assistant Professor, Librarian. B.A., Ohio State University, 1960; M.S.I.S., Catholic University, 1969.


HILL, Thomas Harry, Associate Professor of Music Education. B.M., Boston University, 1949; M.Mus., Boston University, 1955; D.M.A., The Catholic University of America, 1970.

HINTON, William Frederick, Assistant Professor of Biology. A.B., University of North Carolina, 1967; M.A., University of North Carolina, 1968.

HO, Alana Wang, Instructor, Librarian. B.A., Providence College, Taiwan, 1964; M.S., Kansas State Teachers College, 1967.

HOBSON, Irmgard Wagner, Assistant Professor of German. Staatsexamen Tubingen University, Germany, 1961; M.A., Tufts University, 1965; Ph.D., Harvard University, 1970.


HOLDSWORTH, Robert Houghton, Assistant Professor of Biology. A.B., Oberlin College, 1966; Ph.D., Princeton University, 1971.

HOLMAN, Emmett Lou, Lecturer in Philosophy. B.S., Penn State University, 1963; M.A., University of Maryland, 1967.

HOLMES, Benjamin Fred, Instructor in Geography. B.S., Southeast Missouri State College, 1950; M.A., University of Missouri, 1952.

HOOD, Mary Eileen, Instructor, Librarian. B.A., Women's College of Georgia, 1965; M.L., Emory University, 1966.


HUGHES, John James, Associate Professor of Sociology. A.B., Fordham College, 1944; M.S.W., Fordham University, 1954.

HURTA, Donald William, Lecturer in Business Administration. B.E.E., University of Detroit, 1965; M.S., University of California, 1966; Ph.D., University of California, 1969.

JACKSON, James Louis, Professor of English, Chairman of Department of English. A.B., University of Illinois, 1938; M.A., University of Illinois, 1940; Ph.D., University of Illinois, 1949.

JANSEN, Louise Maria, Instructor in German. M.A., University of Amsterdam, 1963.

JENSEN, Ronald Jacob, Assistant Professor of History. B.A., Coe College, 1961; M.A., Indiana University, 1965; Ph.D., Indiana University, 1971.

JOHNSTON, William Cargill, Professor of Physics, Chairman of Department of Physics, Dean of Summer Session. B.A., Davidson College, 1939; M.S., University of Virginia, 1941; Ph.D., University of Virginia, 1943.

JONES, Jr., Lewis Carson, Assistant Professor of Education, Assistant Director of Admissions. B.A., South Carolina State College, 1952.

JONES, Norman Anderson, Lecturer in History. B.S., Kansas State University, 1950; M.S., Kansas State University, 1952; Ph.D., Georgetown University, 1959.

JORDAN, Nehemiah, Professor of Psychology, Chairman of Department of Behavioral Sciences. B.A., Brooklyn College, 1948; M.A., University of Kansas, 1950; Ph.D., University of Kansas, 1952.

JOSLIN, James Kelvin, Assistant Professor of Biology. B.S., University of Wisconsin, 1960; M.S., University of Wisconsin, 1962; Ph.D., Michigan State University, 1971.

JOY, Barnard DeJean, Professor of Education. B.S., Oregon State University, 1930; M.A., University of Maryland, 1934; Ed.D., George Washington University, 1944.


KARLSON, Robert Emil, Associate Professor of English. B.A., College of William and Mary, 1948; M.A., Breadloaf School of English, 1957; Ph.D., George Washington University, 1970.


KEELER, Wayne Hewit, Assistant Professor of Chemistry. B.S., Marietta College, 1964; Ph.D., University of Iowa, 1971.

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KELLEY, Michael Robert, Assistant Professor of English. B.A., Catholic University of America, 1962; M.F.A., Catholic University of America, 1965; Ph.D., Catholic University of America, 1970.

KELSO, Donald Preston, Assistant Professor of Biology. B.S., University of Tennessee, 1962; M.S., University of Florida, 1965; Ph.D., University of Hawaii, 1970.

KHOURY, Angela Jurdak, Associate Professor of Government. B.A., American University of Beirut, 1938; M.A., American University of Beirut, 1939; Ph.D., The American University, 1968.


KILBY, Emelia-Louise, Associate Professor of Education. B.S., Mary Washington College, 1944; M.A., New York University, 1947; Ph.D., University of Washington, 1956.

KILEY, William Thomas, Assistant Professor of Mathematics. B.S., St. Mary's College, 1960; Ph.D., Brown University, 1969.


KLEIN, Barry Michael, Lecturer in Physics. B.S., New York University Graduate School of Arts and Sciences, 1962; M.S., New York University Graduate School of Arts and Sciences, 1965; Ph.D., New York University, 1969.


KOLBO, Allan Dale, Assistant Professor of Geography. B.Sc., University of Nebraska, 1954; M.A., University of Nebraska, 1961; Ph.D., University of Maryland, 1972.


KREILKAMP, Karl, Associate Professor of Philosophy. A.B., University of Minnesota, 1935; A.M., Catholic University of America, 1937; Ph.D., Catholic University of America, 1939.

KROTEE, March Lee, Assistant Professor of Health and Physical Education. B.S., Westchester State College, 1965; M.A., University of Maryland, 1967; Ph.D., University of Pittsburgh, 1971.

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KRUG, Robert Charles, *Professor of Chemistry, Provost.* B.S., University of Richmond, 1940; M.S., Pennsylvania State University, 1941; Ph.D., Ohio State University, 1944.

KU, Kenneth Kung-kai, *Assistant Professor of Regional Cultures.* A.B., Kuang Hua University, 1944; M.A., Seton Hall University, 1963.


LANKFORD, William Fleet, *Associate Professor of Physics.* B.A., University of Virginia, 1960; M.S., University of South Carolina, 1964; Ph.D., University of South Carolina, 1969.

LARKIN, Patrick Joseph, *Associate Professor, Library Director.* A.B., St. Mary's Seminary and University, 1956; M.S., Catholic University of America, 1963.


LIEB, Jr., Bernard Joseph, *Assistant Professor of Physics.* B.S., College of William and Mary, 1965; M.S., College of William and Mary, 1967; Ph.D., College of William and Mary, 1971.


MACCONKEY, Dorothy Ingling, *Assistant Professor of Sociology.* A.B., Beaver College, 1947; M.A., Wichita State University, 1953.

MADERO, James Nicholas, *Acting Assistant Professor of Psychology.* B.A., St. John's University, 1965; M.A., Catholic University of America, 1969.


MAO, Agnes Liu, Instructor, Librarian. B.L., National Chengchi University, 1966; M.L.S., University of Maryland, 1970.

MARCHIONE, Anthony Ronald, Assistant Professor of Business Administration. B.A., George Washington University, 1957; M.B.A., Old Dominion University, 1967; Ph.D., The American University, 1972.

MARTIN, William Reed, Associate Professor of Education. B.A., Gettysburg College, 1955; M.A., Syracuse University, 1958; Ph.D., University of Minnesota, 1968.

MASON, Elliott Bernard, Assistant Professor of Biology. B.S., Loyola University, 1965; M.S., Wayne State University, 1969; Ph.D., Wayne State University, 1972.

McDERMOTT Jr., Michael James, Associate Professor of Philosophy, Registrar. A.B., Fordham University, 1958; Ph.L., Loyola Seminary, 1959.

McDILL, Jean Marie, Lecturer in Mathematics Education. B.S., University of Texas, 1957; M.S.T., University of Florida, 1968; Ph.D., University of Florida, 1971.

McDOVELL, William Moore, Associate Professor, Director of Information. B.A., DePauw University, 1961; M.A., The American University, 1967.

McFARLANE, William Hugh, Professor of Philosophy, Chairman of Department of Humanities. B.A., University of Virginia, 1950; Ph.D., University of Virginia, 1957.


McKEITHEN, Eleaneor Jean, Assistant Professor of Psychology. A.B., University of North Carolina, 1949; M.A., Syracuse University, 1952; Ph.D., Syracuse University, 1962.

McKINLEY, Raymond Ralph, Lecturer in Astronomy. B.S., University of Southern California, 1965; M.S., University of Illinois, 1967.


MELLINGER, Jeanne Cummins, Assistant Professor of Psychology. B.A., Swarthmore College, 1948; Ph.D., University of Chicago, 1952.


MIELCZAREK, Eugenie Vorburger, Professor of Physics. B.S., Queens College, 1953; M.S., Catholic University, 1957; Ph.D., Catholic University, 1963.
MILLAR, Edmund Frederick, Acting Assistant Professor of Sociology. A.B., University of Notre Dame, 1966; M.A., Case Western Reserve University, 1971.

MOLIN, Sven Eric, Associate Professor of English. B.A., Amherst College, 1950; M.A., Columbia University, 1951; Ph.D., University of Pennsylvania, 1956.

MONTEBELLO, Mary S., Lecturer in Children’s Literature. B.S., Ohio Dominican College, 1950; M.A., Ohio State University, 1954; Ph.D., Ohio State University, 1964.

MORETZ, Jr., Walter Jennings, Assistant Professor of Psychology, Director, University Counseling and Psychological Services Center. B.A., Lenoir Rhyne College, 1955; M.Div., Lutheran Seminary, 1959; Ph.D., Florida State University, 1970.


MUSHRUSH, George William, Associate Professor of Chemistry. B.S., Indiana University of Pennsylvania, 1962; M.S., George Washington University, 1965; Ph.D., George Washington University, 1968.

MUSSELL, Kay Johnson, Instructor in English. B.A., University of Iowa, 1965; M.A., University of Iowa, 1970.


NELSON, Robert Martin, Lecturer in Speech. B.S., University of Wisconsin, 1953; M.A., Northwestern University, 1957; Ph.D., University of Denver, 1964.


NICHOLSON, Jeanne Bell, Assistant Professor of Government. A.B., University of Maryland, 1966; M.A., The Johns Hopkins University, 1969.


O’KEEFFE, Richard Bennett, Assistant Professor, Assistant Library Director. B.A., Catholic University of America, 1955; M.S.L.S., Catholic University of America, 1958.
OPPELT, John Andrew, Associate Professor of Mathematics, Chairman of Department of Mathematics. A.B., Loyola College, 1959; M.S., University of Notre Dame, 1961; Ph.D., University of Notre Dame, 1965.

PACHECO, Josephine Fennell, Assistant Professor of History. B.A., Westhampton College of the University of Richmond, 1941; M.A., University of Chicago, 1943; Ph.D., University of Chicago, 1950.

PALMIERI, Anthony Francis, Instructor in English. B.A., University of Maryland, 1964; M.A., University of Maryland, 1966.


PAPP, Zoltan, Associate Professor of Mathematics. Dipl. Math., University of Debrecen, 1958; Dr. rer. nat., University of Debrecen, 1960.

PASNAK, Robert, Assistant Professor of Psychology. B.S., University of Maryland, 1964; M.S., Pennsylvania State University, 1966; Ph.D., Pennsylvania State University, 1969.

PENG, Jia-Jeou, Assistant Professor of Psychology. B.S., National Taiwan University, 1963; M.A., Wayne State University, 1967; Ph.D., Wayne State University, 1970.


PHILLIPS, Jr., Samuel Hudgins, Associate Professor of Economics. B.A., College of William and Mary, 1958; M.A., University of Virginia, 1960; Ph.D., University of Virginia, 1966.


PIELKE, Robert Gerald, Assistant Professor of Religion. B.A., University of Maryland, 1964; B.D., Lutheran Theological Seminary, 1967; Ph.D., Claremont Graduate School, 1973.


FACULTY 225


RICHARDSON, Maxine, Associate Professor of Health and Physical Education. B.S., University of Oklahoma, 1939; M.A., University of Iowa, 1946.

RINEHART, Jon Robert, Assistant Professor of History. B.A., LaSalle College, 1961.


SAPERSTONE, Stephen Harold, Assistant Professor of Mathematics. B.E.P., Cornell University, 1962; M.A., University of Maryland, 1965; Ph.D., University of Maryland, 1970.

SASSER, John Clarence, Lecturer in Biology. A.B., Catholic University of America, 1953; M.S., Catholic University of America, 1955.

SCHINDLER, Clayton Moss, Professor of Education, Dean of College of Professional Studies. A.B., Mount Union College, 1934; M.S., University of Southern California, 1946; Ph.D., Ohio State University, 1950.

SCHUCHMAN, Betty Jane, Assistant Professor of Education. B.S., Indiana University, 1953; M.S., Indiana University, 1963; Ed.D., Indiana University, 1967.


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SPUHLER, Raymond Henderson, Associate Professor of Physical Education, Director of Athletics. A.B., Duke University, 1942; M.Ed., University of Virginia, 1966.

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SWEITZER, Edward Martin, Lecturer in Biology. B.S., Millersville State College, 1965; M.S., University of Maryland, 1968; Ph.D., University of Maryland, 1970.


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.

TAYLOR, George Elber, Lecturer in Biology. B.S., Marshall University, 1952; M.S., Marshall University, 1954.

TEDDER, James Dale, Associate Professor of French. A.B., University of North Carolina, 1960; M.A., University of Wisconsin, 1961; Ph.D., University of North Carolina, 1967.

THOMPSON, Lorin Andrew, Professor of Business Administration, President. B.A., Ohio State University, 1923; M.A., Ohio State University, 1924; Ph.D., Ohio State University, 1927.


TONGREN, Hale Nuckolls, Associate Professor of Business Administration, Chairman of Department of Business Administration. M.B.A., Harvard University, 1959; D.B.A., George Washington University, 1968.

TROWBRIDGE, Norma Thomsen, Associate Professor of Education (on leave). B.S., Drake University, 1959; M.S., Drake University, 1961; Ph.D., Iowa State University, 1964.

TURNER, Robert Amrine, Associate Professor of Mathematics, Dean of Students. B.S., United States Military Academy, 1933; M.A.T., Duke University, 1964.

TUTTLE, John Robert, Lecturer in Business Administration. B.S., United States Naval Academy, 1954; B.S., United States Naval Postgraduate School, 1961; M.S., University of Michigan, 1962.

TYER, Zita Eileen, Assistant Professor of Psychology. B.A., Texas Christian University, 1959; Ph.D., Texas Tech University, 1968.


WALL, James Robert, Associate Professor of Biology. B.S., Virginia Polytechnic Institute, 1951; Ph.D., Cornell University, 1955.

WALLS, Aileen Stephens, Associate Professor of English. A.B., Howard Payne College, 1938; University of Arkansas, 1947; Ph.D., University of Illinois, 1962.

WALTER, J r., Charles Robert, Professor of Chemistry, Chairman of Department of Chemistry. B.A., University of Virginia, 1943; Ph.D., University of Virginia, 1950.

WALTERS, Clarence Paul, Acting Assistant Professor of Psychology. B.A., Pacific Lutheran University, 1967; M.A., Pacific Lutheran University, 1970.


WELANETZ, Ludolph Frisch, Assistant Professor of Engineering. M.E., Cornell University, 1928; M.M.E., Cornell University, 1936; Ph.D., Cornell University, 1938.


WILLIS, William Scott, Professor of French, Dean of the Graduate School. B.A., University of Virginia, 1942; M.A., University of Virginia, 1947; Doctorat de l'Université, University of Paris, 1951.

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WILSON, Laura Williamson, Assistant Professor of Education. B.S., East Carolina University, 1950; M.A., Appalachian State University, 1968; Ed.D., George Washington University, 1972.


WOLFE, Clarence Christopher, Lecturer in Biology. B.S., St. Vincent College, 1962; M.S., University of Nebraska, 1966; Ph.D., Virginia Polytechnic Institute and State University, 1972.

WYATT, Thomas Casper, Assistant Professor of Sociology. B.A., Drake University, 1960; M.A., Drake University, 1961.

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University, 1945; Ed.D., George Washington University, 1969.

YONUSCHOT, Gene Raymond, *Assistant Professor of Chemistry.*
B.S., California Polytechnic College, 1963; Ph.D., University of
Missouri, 1969.

**Retired Faculty**

Marion Bartlett, B.S., M.S., Ph.D. ............... *Former Associate
Professor of Psychology*

*John Norville Gibson Finley, B.A., LL.D. .... *Professor Emeritus,
First Director of George Mason College

* Deceased, December, 1971.
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Bursar/Assistant Business Manager ............................. George McKain
Campus Security Chief ............................................... Louis Law
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Most Valuable Tennis Player: Michael F. MacDonald

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