"...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
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Calendar

SESSION OF 1969-1970

First Semester

Monday, September 8.............. Faculty and Student Orientation,
   Schedule Changes for Pre-Registered
   Seniors and Juniors
Tuesday, September 9............. Schedule Changes for Pre-Registered
   Sophomores and Freshmen
Wednesday, September 10........ Advising and Registration of
   Transfer Students and Returning Students
   who failed to Pre-Register
Thursday, September 11......... Advising and Registration of
   New Freshman, M-Z
Friday, September 12............. Advising and Registration of
   New Freshmen, A-L
Monday, September 15............ First Day of Classes
Monday, September 22........... Last Day for Adding New Courses
Monday, October 6.............. Last Day for Dropping a Course
   Without Incurring an F Grade
Friday, October 31............. Last Day for June Candidates to File
   Degree Application
Friday, October 31............. Mid-Term Progress Reports Due
   From Faculty
Monday, November 10.......... Distribution (mailing) of Mid-Term
   Progress Reports
Thursday, November 27 through  Thanksgiving Recess
Sunday, November 30
Monday, December 22 through  Christmas Recess
Sunday, January 4
Wednesday, January 14........ Reading Day
Thursday, January 15 through  Examinations
Friday, January 23

Second Semester

Monday, February 2.............. Registration
Tuesday, February 3............ Registration
Wednesday, February 4........ First Day of Classes
Tuesday, February 10.......... Last Day for Adding New Courses
Tuesday, February 24.......... Last Day for Dropping a Course
   Without Incurring an F Grade
Friday, March 13................ Last Day For Those Who are
   Completing all Degree Requirements
   in the Summer 1970 to file Degree
   Application
Saturday, Noon, March 28 through  Spring Recess
Sunday, April 5

http://catalog.gmu.edu
GENERAL INFORMATION

George Mason Day
Friday, April 10

Applications for Renewal of Scholarships and Loans Due
Friday, May 1

Examinations
Monday, May 25 through

Commencement
Tuesday, June 2

Sunday, June 7

Summer Session 1970

First Term Begins
Thursday, June 11*

First Term Ends
Friday, July 17*

Second Term Begins
Monday, July 20*

Second Term Ends
Friday, August 21*

*These dates are tentative; details and final dates for the Summer Session are published in a separate bulletin.

1969

1 2 3 4 5 6 1 2 3 4
7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

1 2 3 4 5 6 1 2 3 4
7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

1 2 3 4 5 6 1 2 3 4
7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

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7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

May 1 2 1 2 3 4 5 6 1 2 3 4
June 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
July 1 2 3 4 5 6 1 2 3 4
August 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

1970

1 2 3 4 5 6 1 2 3 4 5 6
7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

1 2 3 4 5 6 1 2 3 4 5 6
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May 1 2 1 2 3 4 5 6 1 2 3 4
June 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
July 1 2 3 4 5 6 1 2 3 4
August 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

1 2 3 4 5 6 1 2 3 4 5 6
7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
Inquiries to the College should be addressed as indicated below:

Academic Programs and Policies  Dean of the College
Admissions  Director of Admissions
Athletics  Director of Athletics
Catalog  Director of Admissions
Financial Matters  Business Manager
Gifts and Bequests  Chancellor
Placement Services  Dean of Students
Public Relations and Development Program  Chancellor
Scholarships  Dean of Students
State Technical Services  Richard C. McAdam
Representation  Dean of Students
Student Affairs  Dean of Students
Summer Session  Director of Summer Session
Transcripts  Registrar

GEORGE MASON COLLEGE, FAIRFAX, VIRGINIA 22030

Visitors are always welcome at the College, and prospective students are especially encouraged to visit the campus, preferably while the College is in session. Administrative offices are open Monday through Friday, but hours vary, and it will be best to make appointments in advance.
GENERAL INFORMATION

Statement of Purpose

"To participate in public service and community education through special divisions and institutes as opportunities for such service are provided;
"To provide programs of continuing education;
"To establish appropriate new programs, schools and degrees and to undertake such advanced and special research as the educational requirements of the Commonwealth of Virginia and the nation may indicate;
"To serve as the intellectual and cultural center of Northern Virginia through special programs, lectures, drama, music and library services."

—Lorin A. Thompson
Chancellor
History of George Mason College

George Mason College is the outgrowth of an extension center established some 20 years ago in Northern Virginia by the University of Virginia. The University's Board of Visitors authorized establishment of a two-year branch college in 1956 to supplement extension offerings in Northern Virginia. This branch opened in September, 1957, in temporary quarters at Bailey's Crossroads. It had 17 students and was called The University College.

The City of Fairfax purchased a site of 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.

A master plan for George Mason was prepared in 1960 to accommodate the requirements of a two-year college serving a maximum of 2,500 students. The first group of four buildings was completed and opened in September, 1964. At that time, George Mason had a faculty of 36 and a student body of 359.

The General Assembly in March, 1966, authorized George Mason to become a four-year degree-granting college and gave it the long-range mandate to expand into a university of major proportions.

Growth was immediate and rapid. During the past three years, both faculty and student body have nearly tripled. By 1969 George Mason had 105 faculty members and approximately 1,450 students. The first senior class received BA degrees in June, 1968. Now BS degrees are offered as well. Two additional buildings have been constructed. Five more will be added within the next two years. Additional land has been purchased so that the College has 570 acres on which to build.

A new master plan for long-range development has been completed and approved by University and State officials. This plan calls for George Mason's growth into a university of 15,000 enrollment by 1985. The university will be divided into six semi-autonomous colleges with about 2,500 students each. Each college will have a particular academic emphasis and each 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 university colleges.

Today George Mason is planning for its future as a major center of learning in this part of the country.
The University of Virginia was chartered by the General Assembly in 1819 under the sponsorship of Thomas Jefferson. It officially opened for instruction on March 7, 1825.

Thomas Jefferson, the University's founder, not only designed and supervised construction of the original buildings and grounds, but interviewed and selected the first faculty and served as first Rector of the Board of Visitors, the governing body of the institution. Other statesmen who served on the Board were James Madison and James Monroe.

Since its opening, the University has prided itself on maintaining a spirit of intellectual freedom and academic excellence. On the eve of the Civil War, the University was second only to Harvard in size of faculty and student body among American universities. The University of Virginia was kept open during the Civil War and Reconstruction, a unique accomplishment among Southern state universities. After the Civil War, it became the first educational institution in the United States to institute an honor system, a system of elective courses and a graduate school of arts and sciences.

During this century, the University has consistently expanded its student enrollment and, during the past 15 years, has established a number of independent graduate and professional schools. To meet an increased demand for advanced education, the University also has founded several colleges in other parts of the state; George Mason College in Northern Virginia is one of these.
CAMPUS AND FACILITIES

Location
Facilities
Student Life
Student Services
Regulations
George Mason College 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.
Facilities

THE CAMPUS

The six buildings on the present George Mason College campus are but a nucleus of what the College soon will become.

Four classroom-laboratory buildings are linked by covered walkways and grouped around a quadrangle. These were the original George Mason buildings, opened in September, 1964, when the school was still a junior college.

Since George Mason was authorized to become a four-year degree-granting institution in 1966, two new buildings have been opened: a lecture hall, containing an auditorium and classrooms, and a modern library.

All are red brick structures, with white linear accents, to capture the spirit of the University of Virginia's Jeffersonian architecture while taking advantage of modern design and construction techniques. All of the buildings are air-conditioned. There are up-to-date laboratory facilities for physical sciences, a language laboratory and a closed-circuit TV system. A student activities center, temporarily located on the ground floor of the South Building, includes a cafeteria, bookstore and student offices.

During the next two years, five additional buildings will be constructed: a large classroom-laboratory building, a physical education building, a student union and two dormitories.

This will complete College I in the long-range plan for George Mason University. The first college will accommodate about 2,500 students. It is hoped that a second college, of like size, can be phased in by 1973.

By 1985, six colleges should be completed. They will provide graduate and undergraduate facilities for about 15,000 students.

LIBRARY

The Charles Rogers Fenwick Library is situated at the southwestern side of the present complex of campus buildings. The building, completed in late 1967, is the first increment of a larger complex planned to provide library services for a rapidly expanding institution. In keeping with its role as the appropriate focus for the dominant intellectual and cultural interests of the College the building is of classically simple design. At present it is equipped to seat approximately 300 patrons and house approximately 60,000 volumes.

Books are usually selected to support the curricula of the College; however, materials of enduring value and general interest
CAMPUS AND FACILITIES

are also acquired. The present collection includes over 29,000 books and 4,000 bound periodicals as well as 5,000 pamphlets, maps, and microfilms. Seven hundred thirty current periodicals are received. The library is also a selective depository for publications of the United States Government.

The College library has become increasingly the laboratory in which much of the student's work is done — instead of a single volume, the whole library is now his textbook. Independent research projects are encouraged as well as critical or creative work in the expectation that all students will learn to use primary sources. To further wide acquaintance with books, the library at George Mason College utilizes an open-shelf arrangement which permits direct access to nearly all of the books in the collection and encourages browsing or study.

Loan arrangements with the Alderman Library in Charlottesville make it possible to draw on the many volumes of the parent institution. The vast resources of the nearby Library of Congress are open to students interested in specialized fields. Inter-library loans are made from the many libraries in the Washington area. The resources of Virginia's academic and special libraries, as well as other collections in the United States, are available for rapid loans via teletype service. The library is open seventy hours per week.

Student Life

ACTIVITIES

Students at George Mason College 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 College, and elections for positions on the Honor Committee are held once a year.

In order to be eligible to hold an elected or appointed office in any student organization or activity of either a governmental, athletic, or managerial character, a student must have no less than a cumulative 2.000 average. It is the responsibility of the individual student, holding an office, to notify his organization or activity when his cumulative average is less than 2.000. A student on probation will be ineligible to participate in any athletic or other activity representing the College on either an intercollegiate or club level and will be ineligible to serve as a working staff member of any
student organization. Authority is vested in the Dean of the College, however, to remove the restriction on activities, in whole or part, for individual cases of academic probation.

There are many student organizations registered with the Student Government that cover a variety of student interests and activities. A list of these student organizations is kept by the Dean of Students.

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

ATHLETICS

The intercollegiate athletic program offers competition between the College and various colleges in Virginia, Maryland and other states on the East Coast. Intercollegiate competition is conducted in basketball, baseball (fall and spring), soccer and cross-country. Tennis and golf will be added to the program in the spring of 1970. The College 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 College participates in the Maryland Intercollegiate Conference. Other conference members are Frostburg State, Bowie State and Coppin State from Maryland and District of Columbia Teachers College and Gallaudet College from the District of Columbia. Competition outside the conference is furnished by American University, Georgetown, George Washington, Randolph-Macon, Fordham University, Coast Guard Academy 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, volleyball, paddle tennis, basketball and softball. The Intramural Council, composed solely of students, conducts the intramural program.

The College as a member of the N. C. A. A. and N. A. I. A. abides by all the rules of these organizations.

Athletic Council

The Athletic Council is composed of two students and six faculty members. The purpose of the Council is to act in an advisory capacity to the Chancellor of the College in all matters pertaining to intercollegiate athletics and to carry out the functions assigned to the Council by the Chancellor.
Intramural Council

The Intramural Council is composed of two students, one male and one female, from each class with the Athletic Director serving in an ex-officio capacity only. The Council is responsible for the promotion, supervision and conduct of the intramural program.

Student Services

LIVING ACCOMMODATIONS

The Placement Office maintains a file of housing available in the vicinity of the College for students interested in accommodations, but the College maintains no housing facilities of its own.

INSURANCE

A combined hospitalization and accident policy is available to all registered students at George Mason College which provides twelve months' coverage. This policy is taken at the option of the student and costs $20.00 for the year, effective September 15, 1969. Protection covers 24 hours a day including interim vacation periods. Applications and brochures are available in the Financial Aid and Placement Office.

PLACEMENT SERVICE

The Placement Office coordinates activities concerned with post-college employment of degree applicants and graduates. The office serves as an intermediary agency between the student and prospective employers, assembling permanent records on each applicant which include academic information, work experience, personal references, and other pertinent data to aid prospective
employers in considering students for particular positions. Registration with the Placement Office assures a complete and permanent file which may be used not only during the final academic year but after graduation. Students, regardless of the degree expected, should register for placement early in their last academic year, even though they have plans for employment or military service immediately following graduation.

Student-employer interviews are scheduled on campus throughout the school session. Representatives from schools and colleges, major businesses, industrial and government agencies, as well as smaller concerns, provide a cross section of employment opportunities for the graduate. From the variety of opportunities presented, the student is able to examine occupational possibilities and acquaint himself with the current employment scene. A file of occupational information and company literature is also available for student use. This file usually includes an annual report to aid in securing financial information, and brochures describing available positions, locations, personnel policies, and other pertinent information.

The Placement Office also provides employment consultation and counseling services to alumni who desire a change in either location or employment. Throughout the year employers may use the services of the Placement Office to fill positions open to alumni with post-college work experience. Referrals are made from among the graduates who have complete placement files on record in the Placement Office.

The Placement Office also assists students in locating summer employment. Many of the companies and governmental agencies recruiting on campus for permanent employees also consider students for summer employment.

Persons who desire the assistance of this office in matters of placement are invited to request further information from the Placement Office.

HONOR SYSTEM

As originally formulated in 1842, the Honor System at the University applied only to final written examinations. Through its more than a century of continuous use, the pledge has been extended to all academic work submitted for credit, statements made to the faculty or administration, and other declarations of good faith or intent. Considered reprehensible under the System are lying, cheating, and stealing.

George Mason College established its Honor System on May 14, 1962. It is recognized and approved as an integral part of the
College as it is of the University. The essence of the System is that a student's word as a member of the College can be accepted without question as truth and that any violation of a student's word is an offense against the Honor System.

Students who enforce the Honor System are not spying; they are in their own eyes and in those of their fellows performing a solemn duty, protecting their individual liberties and the reputation of the student body. If they should fail to investigate suspicious circumstances, they would themselves be guilty of a breach of responsibility and, consequently, of honor.

The Honor Committee is composed of students elected each year by members of the student body. Upon entering the College, all new students attend formal and informal meetings at which faculty members and students discuss the meaning of the System; smaller groups then meet with members of the Honor Committee who answer individual questions about the System. Before initial registration at the College is complete, each student is required to sign a card indicating he understands, accepts and will abide by the conditions set forth in the Honor Code. A statement of willingness to comply with the Honor System is also included in the application form for admission to George Mason College.

CAMPUS MINISTRY ASSOCIATION

An Ecumenical Center located off campus, sponsored by the Christian, Lutheran, Episcopal, Presbyterian, Roman Catholic and United Methodist Churches through the Campus Ministry Association provides a service to all students at the College. The Center provides pastoral counseling and its facilities include meeting rooms for campus organizations, study rooms and recreational facilities.

STUDENT PUBLICATIONS

The ADVOCATE (the yearbook)
The GUNSTON LEDGER (the newspaper)
TheASTERISK (literary magazine)
Regulations

CONDUCT

The College reserves the right to suspend, enforce the withdrawal of, or expel a student whose conduct is in its judgment unsatisfactory. Any student participating in or inciting a riot or an unauthorized or disorderly assembly is subject to suspension.

MOTOR VEHICLES

Students who use the College parking area must register their car(s) with the College Security Office. Such registration includes proof of insurance coverage, valid operator's license and vehicle state registration card. Each vehicle must display on the left rear bumper the decal obtained for $1.00 from the Security Office at time of registration. If more than one car in a family is to be used by the student, each car must be registered. Decals for the second and subsequent cars are furnished without charge.

FIREARMS

The possession, storage, and use of any kind of ammunition, firearms, fireworks, explosives, air rifles, and air pistols is prohibited on College property.

NON-ACADEMIC EVENTS AND PUBLICATIONS

Organizations or groups of students wishing to use College facilities for non-academic matters must obtain permission of the Dean of Students. Each request must indicate the name of the organization, the purpose for which the facility is intended and be registered in advance with the Office of the Dean of Students.

Students who wish to publish, distribute, or sell any publication must first obtain the approval of the Dean of Students.

WITHHOLDING ACADEMIC CREDIT

Grades and transcripts will be withheld from students and former students who have failed to meet their official financial obligations.
CHANGE OF ADDRESS

Each student is required to notify the Recorder of any change of home address, change of the name or address of parent or guardian, or change of his or her legal name. When a student's legal name is changed, the Recorder'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.

VOLUNTARY WITHDRAWAL

An official application form to withdraw must be obtained from the Recorder's Office, and must be approved in writing by the Dean of the College, with a statement of the reason for withdrawal. A student under twenty-one years of age must have parental approval for such withdrawal. To clear the student's record, the application must then be endorsed by the Librarian, Business Office, a member of the Honor Committee and the Dean of Students. When complete, the withdrawal form must be deposited with the Recorder.

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

READMISSION AFTER VOLUNTARY WITHDRAWAL

Readmission to the College is not automatic; after absence of a semester or longer, a former student must apply for readmission to the Dean of the College. 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 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.

ENFORCED WITHDRAWAL

The College 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 implied by registration in the College.
ENTERING GEORGE MASON COLLEGE

Nature of Announcements
Admission Requirements
Registration
Fees
Financial Aid
Veterans’ Affairs
ENTERING THE COLLEGE

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 College authority.

Admission Requirements

Application should be made to the Office of Admissions of George Mason College 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 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.

Both men and women will be admitted to George Mason College under the same regulations.

DISCRIMINATION PROHIBITED

George Mason College complies with Title VI of the Civil Rights Act of 1964 and does not discriminate on the basis of race, color, religion, or national origin.
ADMISSION FROM SECONDARY SCHOOL

Arts, Sciences, and Elementary Education

For admission to the arts, sciences, and elementary education programs, an applicant must present not less than fifteen (15) units of high school work in the following academic fields:

<table>
<thead>
<tr>
<th>Subject</th>
<th>Minimum Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>4 units</td>
</tr>
<tr>
<td>Mathematics</td>
<td>3 units¹</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>2 units²</td>
</tr>
<tr>
<td>Social Studies</td>
<td>1 unit</td>
</tr>
<tr>
<td>Laboratory Science—Biology, Chemistry, or Physics</td>
<td>1 unit</td>
</tr>
<tr>
<td>Electives</td>
<td>4 units</td>
</tr>
<tr>
<td>Minimum Total</td>
<td>15 units</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>Minimum Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>4 units</td>
</tr>
<tr>
<td>Mathematics</td>
<td>3½ units³</td>
</tr>
<tr>
<td>History</td>
<td>1 unit</td>
</tr>
<tr>
<td>Science</td>
<td>2 units⁴</td>
</tr>
<tr>
<td>Electives</td>
<td>5½ units⁵</td>
</tr>
</tbody>
</table>

The experience of the College 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.

All candidates for admission are required to take the Scholastic Aptitude Test given by the College Entrance Examination Board.

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.
Board. 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 your 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 Language 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 Language Department.

The Admissions Office considers each applicant individually, using as its criterion for selection the following:

1. Evidence of good character and acceptable social habits.  
2. Evidence of academic achievement and promise, with acceptable facility in the use of the English language and understanding the fundamental mathematical processes.

The Admissions Office relies upon the secondary school record, examination results, and recommendation from the schools for its basic information. A personal interview is not required unless requested by the Director of Admissions. The following general requirements are set forth for the guidance of students looking toward college admission.

The applicant must be at least sixteen years of age, a graduate of an accredited high school or preparatory school with graduation based on no fewer than fifteen entrance units, or in special cases, have approved equivalent secondary school preparation. Applicants should rank in the upper half of their secondary school class.

In every case the applicant must have general character recommendations from his school. Achievement in activities as well as scholarly attainment will be considered in determining admission.

In summary, a completed application includes (1) a properly completed 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 admission must notify the College not later than May 15th whether they wish to accept or reject this offer. Failure to comply may adversely affect your reserved space for attendance.

*Address of the College Board Offices: Box 592, Princeton, New Jersey, 08540, or Box 1025, Berkeley, California, 94701.
The College reserves the right to withdraw any offer of admission if applicant fails to satisfy all requirements prior to closing of spring or fall registration.

ADMISSION FROM ANOTHER COLLEGE

George Mason College accepts qualified students by transfer from other colleges. An applicant for admission who has attended an institution of collegiate rank for any period of time should request the registrar of each institution he has attended to send an official transcript of his record to the Office of Admissions, George Mason College. A complete secondary school record will also be required. Normally, transfer students will be expected to meet the College'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 reason cannot be considered for admission. Transfer students should note the requirements shown on page 40 under the heading Credits Earned At Other Colleges.

All transfer students must present Scholastic Aptitude Test scores of the College Entrance Examination Board before approval for admission may be formalized.

MEDICAL REPORT

All students approved for admission are required to complete a health form provided by the College and must furnish evidence of immunizations against smallpox and tetanus within the last 10 years, and a chest x-ray within six months prior to matriculation.

Registration

Applicants seeking membership in the College, having been accepted for admission by proper admitting authority, should present themselves to the Dean of the College or his authorized representative on the date specified in the Announcements of the College. 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 proper-
ENTERING THE COLLEGE

ly. 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 College does not discriminate with regard to race, color, religion, or national origin; the information requested is for reports the College 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 subscribe myself a student of George Mason College. I enroll in the College with a serious desire to reap the benefits of its instruction and 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.

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 the 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 the College for proper cause.

Fees

<table>
<thead>
<tr>
<th></th>
<th>In-State Students</th>
<th>Out-of-State Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application Fee</td>
<td>$10.00</td>
<td>$10.00</td>
</tr>
<tr>
<td>Tuition, Full-time (12 through 16 semester-hours) per semester</td>
<td>240.00</td>
<td>600.00</td>
</tr>
<tr>
<td>Tuition, in excess of 16 semester-hours per semester, per hour</td>
<td>16.00</td>
<td>40.00</td>
</tr>
<tr>
<td>Tuition, part-time (11 semester-hours or less) per semester, per hour</td>
<td>20.00</td>
<td>50.00</td>
</tr>
<tr>
<td>Comprehensive Fee, per semester</td>
<td>17.00*</td>
<td>17.00*</td>
</tr>
<tr>
<td>Laboratory Breakage Deposit/semester</td>
<td>5.00**</td>
<td>5.00**</td>
</tr>
<tr>
<td>Physical Education Deposit/semester</td>
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<td>5.00</td>
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<tr>
<td>Physical Education Fee (Golf only)</td>
<td>10.00</td>
<td>10.00</td>
</tr>
<tr>
<td>Diploma Fee (Seniors Only)</td>
<td>5.00</td>
<td>5.00</td>
</tr>
</tbody>
</table>

*Students enrolled for six semester-hours or less are required to pay one-half of the Comprehensive Fee.

**The balance existing in the student's account for laboratory breakage deposit will be refunded, by mail, to the student at the end of the second semester, provided application is made to the Business Office within one year from that time.
CLASSIFICATION AS A VIRGINIA STUDENT

A student is classified in-state if the parent or legal guardian has been domiciled in the State of Virginia for one full and continuous year prior to registration, and has paid Virginia State Income Taxes for the same period of time. It is the domicile of father/guardian and his payment of income taxes that is basic in determining classification as a Virginia student. The mother's domicile applies only when guardianship or custody shifts by virtue of father's death, legal separation or divorce.

PAYMENT OF TUITION AND FEES

The satisfactory payment of tuition and fees is considered a part of the registration process, and is due and payable at the Business Office on or before the dates set forth for registration. No student is permitted to attend class until satisfactory financial arrangements have been made with the Business Office. Those registering (and paying) after the final day of registration will be charged a late registration fee of $5.00 per day, up to three days. All students are urged to make all payments (whether by mail or in person) by personal check or bank draft, if at all possible. Checks should be made payable to George Mason College.

Normally, all students accepted for admission will receive advance billing for the full-time rate. Mailing payments in advance is highly recommended as a major step in reducing the long lines on the day of registration.

Any check returned to the Business Office due to insufficient funds will result in a $5.00 penalty fee for the payee. Further, the student is suspended who fails to make the check good within five calendar days.

DEFERRED PAYMENT PLAN

There is a plan available whereby students may pay all fees and one-third of the tuition on or before day of registration, and pay the remaining tuition in two equal installments:

First Semester — Second and third payments due October 17 and November 17.

Second Semester — Second and third payments due March 3 and April 6.

Failure to make payment on or before due date results in a $5.00 late charge. Any student failing to make payment within
Entering the College

Ten calendar days following due date is suspended and may not attend classes until he has been officially reinstated and, additionally, pays a reinstatement fee of $5.00. (No student may be reinstated who remains suspended in excess of two weeks.)

Refunds

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

In the case of voluntary withdrawals between the 6th and 50th class day, tuition only will be refunded based on a pro rata scale. No refunds are made after the 50th class day, or at any time when the student withdraws involuntarily.

Other Required Fees

Breakage Fees

Only students enrolled in a science course(s) or a physical education course will be required to deposit $5.00 per course. This fee is not generally included in the prebilling statement mailed from the Business Office. Those students who enroll in such courses are required to pay this deposit fee within five class days following registration.

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 College property must register them with the College Security Office and pay a fee of $1.00 for a parking decal. (See Regulations on Motor Vehicles, page 18.)
Financial Aid

George Mason College has a limited amount of financial aid available in the form of scholarships and loans which are administered by the Financial Aid Office of the College. Scholarships, in general, are awarded to students in their second, third or fourth year at the College. First-year students should attempt to meet their obligations through loans available either at the College or at local banks participating in the Virginia Education Assistance Authority Program. The College handles the National Defense Student Loan Program and these loans, when available, are open to all students who demonstrate need. All financial aid is based on need.

All applications for financial aid — scholarships or loans — are due by May 1 each year, with the exception of State Teachers Scholarship Loan applications. They must be filed by April 21. All applications for renewals of loans or scholarships are due by May 1.

The “Parents’ Confidential Statement in Support of Application for Financial Aid” of the College Scholarship Service of Princeton, New Jersey, is required of all new applicants. The statement form and instructions will ordinarily be available from secondary school principals or guidance counselors. This information is also available at the Financial Aid Office. Each candidate should make sure his statement is filed and a copy sent to George Mason College.

The Statement of the College Scholarship Service and the George Mason College financial aid application must be submitted to the Financial Aid Office at the College.

To hold a scholarship, a student must maintain a grade point average of 2.5, and application for renewal of the scholarship must be filed by May 1 each year.

SCHOLARSHIPS

George Mason College Foundation, Inc.

General funds which have been donated to the George Mason College Foundation, Inc. and designated for scholarship endowment are held in trust by the Foundation. Income from these gifts is used for general scholarships.

Funds have been contributed to the Foundation by members of the Lynch family of Northern Virginia; by Mrs. F. Shield McCandlish in memory of her husband, F. Shield McCandlish and
her uncle, R. Walton Moore; by friends of Judge E. Calvin Van Dyck in tribute to his many services to Northern Virginia; by the Northern Virginia Service League; and by numerous other civic organizations, industrial and business establishments. This fund is administered by the Financial Aid Office on behalf of the Foundation.

**Undergraduate Scholarships**

These funds are made available by the General Assembly for scholarships for undergraduate Virginia residents who demonstrate financial need and have established a record of good personal character and citizenship.

**State Teachers' Scholarship Loan Program**

These scholarships are in the nature of loans in the amount of $350.00 per year which are cancelled at a fixed rate for each year of teaching in Virginia schools after graduation. Applicants must be Virginia residents and meet the qualifications set by the State Board of Education. Application forms are available in the Financial Aid Office.

**FEDERAL FINANCIAL AID PROGRAMS**

George Mason College participates in several federally supported programs of student financial aid. The following are available to eligible students.

**The National Defense Student Loan Program**

The College makes available to qualified students, loan funds from the federally-sponsored National Defense Student Loan Program. Terms and requirements for these loans are available in the Financial Aid Office. A borrower from this fund who becomes a full-time teacher in an elementary or secondary school or in an institution of higher education may have a portion of his total loan cancelled.

**The Educational Opportunity Grant Program**

The federal government makes available a limited number of direct grants to undergraduate 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

The federal government makes available funds to provide exceptional work opportunities to 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 and the ability to maintain a satisfactory academic standing while working in the College, will be considered for Work-Study job placement.

U.S. Loan Program for Cuban Students

Long-term, low-interest-bearing 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. A borrower from this fund may have a portion of his total loan cancelled if he becomes a teacher in public or non-profit elementary or secondary schools or institutions of higher education.

EMERGENCY LOAN FUND

The McLean Kiwanis Club has made funds available from which a student may borrow up to $50.00 for a period of thirty days for emergency situations.

Veterans' Affairs

The Financial Aid Office is the College'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 to receive 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 Financial Aid 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. Upon approval of the benefits and enrollment at the College, the Financial Aid Office assists the eligible persons in their relations with the Veterans Administration.
ACADEMIC REGULATIONS

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

"A college or university is reflected in the eyes of people in different ways—to some, it is academic programs; to others, it is students; to still others, it may be buildings. These separate images must merge and, in the ultimate analysis, the university is people."

—DR. ROBERT C. KRUG
Dean of the College
Introduction

In the implementation of academic regulations the Associate Dean of the College may act as the designated representative of the Dean of the College.

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

College 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 College recognizes four grades above passing: "A," "B," "C," and "D." Grade "F" signifies that the work was failed. In rare instances, with the approval of the Dean of the College, a student may receive a grade of "Incomplete." A student absent from examination may receive a grade of "Absent" which automatically becomes "F," as does a grade of "Incomplete," within ten days after the date of the regular examination, unless the "Incomplete" or "Absent" has been excused by the Dean of the College.

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
ACADEMIC REGULATIONS

CREDIT WITHOUT GRADE

Each student who is a candidate for a degree at George Mason College, 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. 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 shall 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.

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 semester-hours of work except under the following conditions: special permission to carry a reduced number of hours (less than 12) may be granted by the Dean of the College or his representative for such reasons as necessary outside employment or ill health. A load in excess of seventeen hours must be approved by the Dean of the College or his representative.

AUDIT

Under certain circumstances a student may be given permission by the appropriate department chairman to audit a course. However, a student may not at a later date take for credit a course which he has previously audited. The usual College fees apply to audit status. Additional information regarding audit status may be obtained from departmental chairmen.
REPEATING A COURSE

A student who has passed a course with a grade of "D" or better is not permitted to repeat that course. With the approval of the department chairman in which the course is taught, a student may audit a course which he has previously taken and passed. However, appropriate College fees will apply for the course to be audited.

CHANGE OF COURSES

In order to drop and/or add a course, a student must obtain the written permission of his faculty adviser, the chairman of the department in which the dropped or added course is taken, and the Dean of the College. Forms for this purpose are provided by the Recorder's Office. The last day for adding courses shall be no later than seven calendar days after and including the first day of classes.

The last day to drop a course without incurring an "F" shall be three calendar weeks after and including the first day of classes. Any student who discontinues a course without proper permission will receive a grade of "F" in that course.

ATTENDANCE

Students are required to attend classes throughout the session, with the exception of College holidays and absences due to illness or injury, unless permission to be absent temporarily or to withdraw has been first granted by the Dean of the College. Students are required to attend lectures and other prescribed exercises of the courses for which they are registered, subject to penalties which the College approves. The usual criterion for allowable absences is one unexcused absence per credit hour per semester. Absences in excess of this may result in exclusion from the course with a grade of "F" upon recommendation of the instructor with the written approval of the Dean of the College.

EXCLUSION FROM COURSES

A student who is making no real progress in a course may, at any time during the session, be excluded from the course with a grade of "F" by the Dean of the College upon recommendation of the instructor concerned.
Reports and Examinations

MID-TERM PROGRESS REPORTS

Progress reports will be due from the faculty at the end of the seventh week of classes in the first semester. These reports will be processed and distributed by the end of the eighth week so that seven weeks of the semester will remain during which time a student noted to be in academic difficulties 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 estimated to be that 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 21 years of age or married in which case the reports are sent directly to the student.

EXAMINATIONS

Written examinations are held at the end of each semester on the work of that semester. Courses which are predominantly laboratory work are not entitled to an examination during the regular examination period. In such courses an examination may be given in the last regularly scheduled laboratory period. No changes may be made in the announced examination schedule unless approved in writing by the Dean of the College.

ABSENCE FROM EXAMINATIONS AND SPECIAL EXAMINATIONS

Absence from 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 Dean of the College. If such absence is unexcused or the examination not taken within ten days, the grade on the course is entered as “F.” A student whose
absence from an examination is excused may take a special examination within the 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 which they have failed.

Deficiencies

PROBATION AND SUSPENSION FOR ACADEMIC DEFICIENCY

A student who maintains a grade point average of 2.000 for all work attempted is in good academic standing within the University of Virginia system. A student who is not making satisfactory progress is placed on probation when his cumulative grade point deficiency falls below the level set by the College. He will be suspended from the College if his performance continues to be unsatisfactory or if he displays grossly inadequate performance during a single semester. A table of academic deficiencies used at George Mason College to determine the liability of a student to academic probation or suspension may be obtained from the office of the Dean of the College. The grade points (GP) for each semester-hour are assigned on a scale of A = 4, B = 3, C = 2, D = 1, and F = 0. The grade points earned for a course are computed by multiplying the value of the letter grade by the course semester-hours. The cumulative grade point average is obtained by dividing the total number of points earned to date by the total number of hours attempted.

The following practices guide the imposition of probation or suspension:

Probation

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

(2) In order to be eligible to hold an elected or appointed office of either a governmental, athletic, or managerial character
in any student organization or activity, a student must have no less than a cumulative 2.000 average. A student on probation will be ineligible to participate in any athletic or other activity representing the College on either an intercollegiate or club level and will be ineligible to serve as a working staff member of any student organization recognized by the College. Authority is vested in the Dean of the College, however, to remove the restriction on activities, in whole or part, for individual cases of academic probation.

(3) The academic record of a student who has been placed on probation is stamped "probation." The record of a student to whom rule (2) or (3) in the section below has been applied shall be stamped "special probation."

(4) The student who is carrying less than 12 semester-hours of work and whose total of hours attempted at George Mason College including the current semester is less than 12 semester-hours shall 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 College. A student who has been on probation (or special probation as defined below) for three consecutive semesters shall be suspended, except as provided below.

(2) No student on probation shall 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 shall 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, shall be suspended, except that freshmen shall not be subject to this rule.

Readmission After Suspension

(1) Normally, a student on suspension for the first time may establish his eligibility for special readmission only if he attends the Summer Session of this College 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 College must be approved by the Dean of the 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. 36 during the semester following his special readmission.

(4) A student who has been reinstated after suspension and is subsequently suspended again may petition for readmission only after the lapse of two calendar years.

**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 College. 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 College.

**Standing**

**FOREIGN LANGUAGE PLACEMENT**

All students who have studied French, German, or Spanish in high school and who intend to continue in the same language at George Mason College must take a language placement test. The placement tests for students entering in the fall of 1969 will be administered during registration week at a time to be announced. Students should take the placement test unless they are positive that they will not continue the language begun in high school.
ACADEMIC REGULATIONS

Students offering one year of a high school language who begin that language over again at George Mason College will receive a grade and degree credit for both semesters. If a student offering two years of a high school language is placed in the first year of that language, he will receive a grade but no degree credit for the first semester, but will receive both a grade and degree credit for the second semester. Students offering three or four years of a high school language will not be allowed to take the first year of this language for degree credit; however, if they are placed in the second year of that language at George Mason College, they will receive grade and degree credit for both semesters. Students, who have previous training in a foreign language but who have not studied this language during the four years prior to registration at George Mason College, shall be allowed to take the first year of the language for credit. In the event that a student has received college credit in a foreign language but wishes to repeat all or part of that course work at George Mason College, the student may not receive credit more than once for the same course.

In the 1969 Summer Session one three semester-hour course in a review of elementary French and one three semester-hour course in a review of elementary Spanish will be available. These courses are intended to upgrade the language ability of students who plan to enter a regular session of George Mason College with a high school record which shows at least the required minimum of two years of high school language but whose actual ability is not strong enough to let them take the sophomore level course successfully.

ADVANCED PLACEMENT PROGRAM WITH CREDIT

First semester freshmen entering George Mason College 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 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 college or departmental graduation requirement. Students receiving advanced credits will be eligible immediately to enter the next higher level courses for which they possess the prerequisites.
ADVANCED PLACEMENT PROGRAM
WITHOUT CREDIT

Entering first semester freshmen who do not qualify under the above provisions 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 College 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.

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. A maximum of forty semester-hours will be transferred for extension work from regionally accredited institutions, and 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 College.

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

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 the 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 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 a major from that which he has previously declared should obtain the necessary form from his faculty adviser.

DOUBLE MAJOR

A student who desires to graduate from George Mason College with a Bachelor of Arts 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 College. The departments 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 College 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 an average grade in all courses of at least "B."

GRADUATION WITH DISTINCTION

George Mason College 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, based on all work taken within the University of Virginia system, and such recognition shall be limited to students who have had sixty hours or more within the University of Virginia system. (This distinction shall appear on the graduation program and on the student's transcript.)
ACADEMIC PROGRAMS

General
Summer Session
Major Programs
General

Various academic programs are available to students at George Mason College. Courses of study leading to the Bachelor of Arts degree are available with majors in eleven areas: biology, business and public administration, chemistry, economics, English, French, history, mathematics, physics, psychology, and Spanish. Courses of study leading to the Bachelor of Science degree with the major in biology, and a Bachelor of Science degree in Education with the major in elementary education are also available.

Students desiring to go into engineering may obtain their first two years of study at the College. For those wishing to enter into a nursing career, numerous courses are offered preparatory to further training elsewhere in this specialized area.

Summer Session

Information concerning George Mason College Summer Session is presented in a separate publication which is available in March.

Major Programs

BIOLOGY

The shortage of persons qualified to work in the life sciences, including the preparation for medicine, is recognized by such organizations as the United Nations and the United States Department of Health, Education, and Welfare. The program in biology is designed to meet some of these varied needs.
BUSINESS AND PUBLIC ADMINISTRATION

The rise of new industries with their products of commerce and the development and implementation of vast programs sponsored by state and national institutions require an ever-increasing supply of administrative talent on many different levels.

CHEMISTRY

Studies in this field provide basic training, both theoretical and experimental, in the four main branches of chemistry— inorganic, organic, analytical, and physical. It will prepare students for further studies in chemistry and related scientific fields including medicine. It will also provide fundamental training for careers in chemical industry, government scientific programs, and allied areas.

ECONOMICS

This program offers the student who is majoring in economics a realistic and workable knowledge of economics and complementary courses such as business and economic statistics and mathematics. The program in economics will provide undergraduate education leading to the baccalaureate degree for careers requiring such a degree, such as positions with business and government. The program will also prepare students for teaching economics at the high school level as well as for those who desire to pursue graduate level education leading to higher degrees.

ELEMENTARY EDUCATION

The program includes courses and activities designed to: (1) obtain certification in Virginia as a teacher of Grades 1-7, (2) meet standards developed by regional and national agencies for accreditation of teacher programs, and (3) meet other qualitative standards considered important, including an academic field of concentration. Positions for which students qualify through this program comprise the majority of all public school positions, and afford opportunity for developing many specialities through future graduate study.
ENGLISH

Studies in this field provide basic education in language and literature and prepare students to meet state and national needs for teachers, to enter graduate schools, and to enter writing positions in national agencies, in mass media, and in entertainment media. The major in English has also been traditionally a popular field of concentration for students seeking a general liberal arts education.

FRENCH

The major in French language and literature prepares the student to meet state and national needs for high school teachers and for persons skilled in French in governmental and business positions requiring a knowledge of French. Many French major students normally enter graduate studies in French language and literature. The major in French has also been traditionally one of the fields of concentration appropriate for students seeking a general liberal arts education.

HISTORY

Governmental services, both state and federal, have evolved in order to meet the complex needs of today’s society. Graduates of this program, having had the benefit of a broad study of events and their effects upon institutions, are needed to (1) develop more effective programs, (2) guide and interpret the laws man makes for himself, and (3) instruct the succeeding generation.

MATHEMATICS

This program provides students with the training necessary for careers as mathematicians, statisticians, and computer scientists, or to enter graduate schools for further study in mathematics.
ACADEMIC PROGRAMS

PHYSICS

The major in physics is intended to prepare students to pursue careers in physics, in industry, and government, and to prepare students for graduate studies. A modified program is also available for those who wish to qualify for teaching physics in secondary schools.

PSYCHOLOGY

This program offers the student who is majoring in psychology a wide background in the approaches to the understanding of behavior. This objective will be met by introducing the methodological procedures employed by psychologists and by applying these procedures to the significant substantive areas of modern psychology. The staff of the department is also committed to providing these offerings within the framework of the liberal arts tradition by examining the interdisciplinary aspects of psychology. Students will be strongly advised to elect related areas of study such as biology, philosophy, and sociology, in addition to completing the thirty-five hour requirement for the degree. In this way the major program will provide students with the broad preparation required for graduate study in psychology as well as a versatile, broadly based program for the terminal degree student.

SPANISH

The major in Spanish language and literature prepares the student to meet state and national needs for high school teachers of Spanish and for persons skilled in Spanish in government and business. Many Spanish students enter graduate studies in Spanish language and literature. The major in Spanish language and literature is also one of those appropriate for students seeking a general liberal arts education.
DEGREE REQUIREMENTS

General
Bachelor of Arts
Bachelor of Science
Bachelor of Science in Education
Engineering
Transfer within the University
Professional School Entrance Requirements
DEGREE REQUIREMENTS

The student should consult his faculty adviser and the Chairman of the Department in which the major is offered in order to plan a sound academic program and meet the general degree requirements stated below and specific requirements within a major field.

RESIDENCE REQUIREMENTS

At least thirty of the total semester-hours presented on the degree application must be completed at George Mason College; 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 the College, the student's final thirty hours of 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, and an average grade of 2.000 (C) on all courses presented for the degree.

A Graduation Appeals Committee has been established to consider appeals in writing from students who may be two grade points and/or one semester-hour short of meeting degree requirements and to report recommendations to the faculty.

APPLICATION

Students who expect to complete graduation degree requirements in 1970 must secure an Application for Degree Form from the Recorder's Office, complete, and return it to the Recorder's Office by the date designated on the College calendar. There is a $5.00 diploma fee which is payable at the time the student submits his Application for Degree.
Bachelor of Arts

I. Arts and Literature ........................................................................................................ 12-36
   a. English Composition (0-6)
   b. Literature (6)
      This requirement must be met by taking any one of the two-semester sequences of literature courses offered at the 200 level carrying the "English" designation.
   c. Art, music, philosophy (6)
      Music 113, 114, 115, 116, 251 and applied courses such as music lessons or art studio courses may not be used to meet this requirement.
   d. Foreign language requirement (0-18)
      Depending upon placement, each student must present three years in one foreign language or two years each of two different foreign languages.

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 mathematics or in another science.

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 221: History of Ancient Art
    c. English 330: Far Eastern Literature in Translation
    d. History 361: Latin-American History: The Colonial Era
       History 441: The Rise of Russia
       History 442: Modern Russia and the Soviet Union
       History 451: East Asian Civilization
       History 452: East Asian Civilization
DEGREE REQUIREMENTS

   The courses meeting this requirement may also be presented in partial fulfillment of requirements stated in Sections I and II.

V. Major ........................................................................ 30-42
   Credits as specified by fields.

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. At least twelve semester-hours in the major field beyond the minimum requirement for the B.A. degree in that field, the total number of hours in the major not to exceed 54.

II. At least one course beyond the 201-202 level in one language; or the 201-202 level in one language plus at least one year in another.

III. At least 12 semester-hours of electives exclusive of the natural sciences and mathematics.

IV. Semester-hours in mathematics as specified by fields.

V. At least 12 semester-hours in English.

VI. Total minimum semester-hours, 120.

Bachelor of Science in Education

Because of the nature of this program, specific items are not listed here but are shown in detail including the minimum requirement of 124 semester-hours on pages 62 and 63.
Engineering

(Two Years Only)

This program is designed for students planning to transfer to other colleges and universities. Students, who undertake the engineering program at George Mason College, should plan on an additional three years being required at the University of Virginia and possibly at other colleges to which they may transfer in order to complete the baccalaureate degree in engineering. See Chapter VII, page 92.

Schedule I. (Freshman 1969)

First Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 101-102: Composition</td>
<td>6</td>
</tr>
<tr>
<td>Chemistry 101-102: General Chemistry</td>
<td>8</td>
</tr>
<tr>
<td>Mathematics 115, 116: Analysis</td>
<td>8</td>
</tr>
<tr>
<td>Engineering 181, 182: Graphics</td>
<td>4</td>
</tr>
<tr>
<td>Engineering 185: Statics</td>
<td>2</td>
</tr>
<tr>
<td>Engineering 186: Dynamics</td>
<td>2</td>
</tr>
<tr>
<td>Physics 104: General Physics I, Spring Semester</td>
<td>3</td>
</tr>
</tbody>
</table>

Second Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics 215, 216: Analysis</td>
<td>8</td>
</tr>
<tr>
<td>Physics 205, 206: General Physics II, III</td>
<td>10</td>
</tr>
<tr>
<td>Engineering 281: Properties of Materials</td>
<td>3</td>
</tr>
<tr>
<td>Engineering 282: Thermodynamics</td>
<td>3</td>
</tr>
<tr>
<td>Engineering 285: Electric Circuits</td>
<td>3</td>
</tr>
<tr>
<td>Engineering 286: Electronics</td>
<td>4</td>
</tr>
</tbody>
</table>

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Schedule II. (Sophomore 1969)

Second Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics 215, 216: Analysis</td>
<td>8</td>
</tr>
<tr>
<td>Physics 205, 206: General Physics II, III</td>
<td>10</td>
</tr>
<tr>
<td>Engineering 210: Statics</td>
<td>3</td>
</tr>
<tr>
<td>Engineering 211: Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>Electives (restricted)</td>
<td>9</td>
</tr>
</tbody>
</table>

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DEGREE REQUIREMENTS

Transfer within the University

Students who wish to transfer to Charlottesville or to University Colleges within the University system should consult with the Dean of the College at George Mason.

Professional School Entrance Requirements

LAW

To be admitted to the School of Law of the University of Virginia an applicant must have received his Bachelor's degree. The School of Law has recommended the following subjects for a pre-legal curriculum: English, Latin, French, German, Spanish, Italian, history, natural science, mathematics, accounting, political science, economics, psychology, public speaking. The pre-legal requirements may be met as a part of the program for the Bachelor of Arts degree.

MEDICINE

The minimum requirement for admission to the School of Medicine of the University of Virginia is ninety semester-hours of academic courses, although completion of the curriculum leading to the degree of Bachelor of Arts is encouraged. Courses in inorganic chemistry, organic chemistry, biology, physics, and English are required, but concentration in the sciences is not essential. Medicine is concerned with a variety of social and community problems, and a broad cultural background is considered desirable.

The pre-medical course for each student should be planned in keeping with his interests. Development of an efficient method of study and habit of reasoning is more important than the selection of subjects. Requirements may be met within the programs leading to the degree of Bachelor of Arts.

Properly prepared students may help satisfy admission requirements to other schools of law and medicine as well as schools of dentistry, pharmacy and veterinary medicine by taking the general basic courses required for admission.
COURSES OF INSTRUCTION

Department of Biology
Department of Chemistry
Department of Education
Department of History
Department of Humanities
Department of Languages
Department of Mathematics
Department of Physics
Department of Social Sciences
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 College reserves the right to change the schedule and to adjust individual section enrollments as required.

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 222) 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 (as Biology 101-102) indicates that the course extends throughout a session of two semesters, and that both semesters must be completed before the course may count toward a degree.

A double number separated by a comma (English 323, 324) indicates that the course extends throughout a session of two semesters and that the first semester may be taken by itself. Unless otherwise specified, the second semester may also be taken by itself.

In general, an odd number (as Biology 101) indicates that the course is given in the first semester of the session; an even number (Biology 102) indicates that the course is given in the second semester.

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

Assistant Professors Stanley (Program Coordinator), Andrykovitch, Bradley, Shaffer
Acting Assistant Professor Flint
Instructors Heath, Parks, Withers
Lecturer Pizer

REQUIREMENTS FOR THE MAJOR

B.A. Degree.—A minimum of thirty-two semester-hours in biology is required for a B.A. degree with a major in biology. These must include Biology 101-102 and at least one course from each of five major subdivisions of the department (denoted by the second figure: 1, 2-3, 4-5, 6, and 8, in the course numbers). They may include physiological psychology and biochemistry. General chemistry is required and the following courses are recommended: organic chemistry, physical chemistry, college physics, and calculus.

B.S. Degree.—To receive a B.S. degree with a major in biology a minimum of forty-four semester-hours in biology is required. These must include courses selected from the five major subdivisions as indicated for the B.A. degree. Physiological psychology and biochemistry may be counted as biology credits. General chemistry and organic chemistry are required and the following courses are strongly recommended: physical chemistry, college physics, calculus, and statistical analysis.

COURSES

101-102: GENERAL BIOLOGY. [8]
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.

221: VERTEBRATE ZOOLOGY. [4]
Prerequisite: Biology 101-102. Study of phylum Chordata, emphasizing homologous body structures in the various vertebrate classes and their relationships to the functional demands of habit and environment in each class. Two lecture hours, six laboratory hours.
COURSES OF INSTRUCTION

222: VERTEBRATE EMBRYOLOGY. [4]  
Prerequisite: Biology 101-102. A comparative study of the origin and development of various tissues and organs of the vertebrates. Two lecture hours, six laboratory hours.

244: TAXONOMY OF FLOWERING PLANTS. [4] (Offered in alternate years)  
Prerequisite: Biology 101-102. 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.

245: PLANT ECOLOGY. [4]  
Prerequisite: Biology 101-102. Study of the dynamics of ecosystems, populations, and plant formations. The laboratory emphasizes field data concerning plant formations and their successions in Virginia. Three lecture hours, three laboratory hours.

281: INTRODUCTORY MICROBIOLOGY. [4]  
Prerequisite: Biology 101-102. Fundamentals of the morphology, physiology, and biochemical characteristics of bacteria, rickettsia, and viruses. Three lecture hours, three laboratory hours.

311: GENERAL GENETICS. [4]  
Prerequisite: Biology 101-102. A study of the basic principles of heredity and the modern developments in the field. Three lecture hours, three laboratory hours.

331: INVERTEBRATE ZOOLOGY I. [4]  
Prerequisite: Biology 101-102. Survey of the invertebrate phyla, excluding insects, to show the morphology, phylogeny, and general biology of these groups. Three lecture hours, three laboratory hours.

Prerequisite: Biology 101-102. A survey of the insects including taxonomy, morphology, physiology, behavior, and ecology and comparison with other arthropods. The laboratory emphasizes experimental methods. Three lecture hours, three laboratory hours.

342: PLANT MORPHOLOGY. [4] (Offered in alternate years)  
Prerequisite: Biology 101-102. 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.

343: ALGAE AND FUNGI. [4]  
Prerequisite: Biology 101-102. An introduction to the biology of the algae and fungi with emphasis on their morphology, nutrition
and ecology and on their evolutionary relationships. The laboratory will also deal with the culture, collection, identification, and preservation of these forms. *Three lecture hours, three laboratory hours.*

*Prerequisite: Biology 101-102.* Correlated study of the anatomy and normal functions of animal organ systems, with special reference to those of man. *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 101-102; and Biology 281 or permission of the 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.*

462: CELLULAR PHYSIOLOGY. [4]  
*Prerequisites: Biology 101-102, Chemistry 101-102. Corequisite or prerequisite: Chemistry 214.* Study of the fundamental physiological properties and correlated anatomy of cells. *Three lecture hours, three laboratory hours.*

464: PLANT PHYSIOLOGY. [4]  
*Prerequisite: Biology 101-102.* The function of plant cells and plant organ systems with emphasis on water relationships, photosynthesis, mineral nutrition, and growth development. *Three lecture hours, three laboratory hours.*

471: EVOLUTION. [3]  
*Prerequisites: Biology 101-102; and Biology 311 or permission of the 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.*

499: SPECIAL PROBLEMS IN BIOLOGY. (Two hours credit each semester)  
*Prerequisite: Enrollment is restricted to senior majors in biology with approval of the instructor.* Laboratory or field investigation under the guidance of a member of the staff. Usually the student will review the literature and plan the research procedures during the first semester and perform the research during the second semester.
COURSES OF INSTRUCTION

Department of Chemistry

Professors Walter (Chairman), Krug
Associate Professor Feinstein
Assistant Professors Cozzens, Mushrush
Instructors Eassa, Hawkins
Lecturer Ginsburg

REQUIREMENTS FOR THE MAJOR

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 101-102, 213-216, 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.

COURSES

101-102: GENERAL CHEMISTRY. [8]
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. Three lecture hours, three laboratory hours.

213-216: ORGANIC CHEMISTRY. [4-5]
The theoretical, synthetic, industrial and biological aspects of the chemistry of carbon compounds. 213: Three lecture hours, three laboratory hours; 216: three lecture hours, six laboratory hours.

321: ELEMENTARY QUANTITATIVE ANALYSIS. [4]
Prerequisite: Chemistry 101-102. 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. Two lecture hours, six laboratory hours.

331: PHYSICAL CHEMISTRY I. [3]
Prerequisite: Chemistry 101-102, 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.*

337: PHYSICAL CHEMISTRY LABORATORY II. [1]
*Prerequisite or corequisite: Chemistry 331. Continuation of Chemistry 336. Three laboratory hours.*

422: INSTRUMENTAL ANALYSIS. [4]
*Prerequisite: Chemistry 321; prerequisite or corequisite: Chemistry 331 or permission of instructor. This course presents 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.*

441: INORGANIC CHEMISTRY. [3]
*Prerequisite: Chemistry 213-216, 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.*

451, 452: 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.*

461: INTRODUCTORY BIOCHEMISTRY. [3]
*Prerequisite: Chemistry 213-216. Chemistry and intermediary metabolism of carbohydrates, lipids, proteins, and nucleic acids. Interrelations among the carbon, nitrogen, and energy cycles. Three lecture hours.*
Department of Education

Professor Gibson (Chairman)
Associate Professor Snyder
Assistant Professors Aebischer, Austin, Spuhler
Lecturers Azarowicz, Richardson

REQUIREMENTS FOR PROSPECTIVE TEACHERS

The Teacher Education Program admits students on an individual selective basis and provides for continuous review of their progress to assure that those graduating as teachers can be fully recommended for their role in directing the learning activities of children and youth. This program is designed to produce teachers who upon completion of the Bachelor's degree will qualify for the Virginia Collegiate Professional Certificate, and will otherwise be well fitted to make a successful beginning as a professional teacher.

Formal application to enter the Teacher Education Program is to be made in that semester prior to enrollment in the third professional course (Education 312 or 321), and an individual's admission to the program must be granted by the Teacher Education Committee before registration in those courses. In granting admission to the program this Committee will give consideration to emotional balance, personality, leadership qualities, ability in oral expression, moral character, and freedom from disqualifying physical and health conditions, as stipulated in part in Virginia "Certification Regulations for Teachers", Page 3, as follows:

I. Applicant must be a citizen of the United States, must be at least 18 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.

Qualification for admission also includes a 2.000 grade point average. Continuing review of qualifications as a teacher is conducted throughout the program to include interview and appropriate tests in Education 301, and a 2.100 grade point average for enrolling as a student teacher.

TEACHING IN HIGH SCHOOL

The program for teachers in high school requires the completion of eighteen (18) semester-hours of work as follows: Education 301, 311, 321, 322 and 411 (Student Teaching). In addi-
tion to or as a part of B.A. requirements in the College, work taken must include American history, two (2) semester-hours of health, two (2) semester-hours in physical education, and twelve (12) semester-hours in a combination of science and mathematics. Also recommended are courses in economics and speech.

TEACHING IN ELEMENTARY SCHOOL

The program for teachers in elementary school is indicated in the listing of requirements given in a typical recommended sequence, as follows, totaling 124 hours or more in the degree of Bachelor of Science in Education.

<table>
<thead>
<tr>
<th>Freshman</th>
<th>2nd Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1st Semester</strong></td>
<td><strong>2nd Semester</strong></td>
</tr>
<tr>
<td>Eng. 101</td>
<td>Eng. 102</td>
</tr>
<tr>
<td>Psych. 101</td>
<td>Psych. 102</td>
</tr>
<tr>
<td>For. Lang. (See pg. 51)</td>
<td>For. Lang.</td>
</tr>
<tr>
<td>History 101 (or 102)</td>
<td>Econ. 101</td>
</tr>
<tr>
<td>Math. 106</td>
<td>Geography</td>
</tr>
<tr>
<td>(16)</td>
<td>(16)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sophomore</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Eng. 201 or 203</td>
<td>(3) Eng. 202 or 204</td>
<td></td>
</tr>
<tr>
<td>For. Lang.</td>
<td>(3) For. Lang. or concentration</td>
<td></td>
</tr>
<tr>
<td>Health 210</td>
<td>(2) Art Elective</td>
<td></td>
</tr>
<tr>
<td>Natural Science</td>
<td>(3) Natural Science</td>
<td></td>
</tr>
<tr>
<td>Hist. 121 (or 122)</td>
<td>(3) Speech 151</td>
<td></td>
</tr>
<tr>
<td>(15)</td>
<td>(16)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Junior</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>English, 300 level</td>
<td>(3) Math. 303</td>
<td></td>
</tr>
<tr>
<td>Music 290</td>
<td>(3) Ed. 311</td>
<td></td>
</tr>
<tr>
<td>Ed. 301*</td>
<td>(3) Ed. 312</td>
<td></td>
</tr>
<tr>
<td>For. Lang. 301** or concentration</td>
<td>(3) Ed. 314</td>
<td></td>
</tr>
<tr>
<td>Elec. or concentration</td>
<td>Elec. or concentration</td>
<td></td>
</tr>
<tr>
<td>(15)</td>
<td>(16)</td>
<td></td>
</tr>
</tbody>
</table>

*Should be taken in the preceding semester if 63rd hour of credit is to be earned in that semester. If taken in preceding semester, recommend Ed. 311 be taken in first semester of Junior year, and Speech 151 be postponed to second semester of Junior year.

**The foreign language requirements for the B.S. in Education degree may also be met by two years in one language plus one year in a second language.
COURSES OF INSTRUCTION

### Summer

Recommended for enrichment or for courses in field of concentration.

<table>
<thead>
<tr>
<th>Course</th>
<th>Elective or Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ed. 410#</td>
<td>(8)</td>
</tr>
<tr>
<td>Ed. 313</td>
<td>(3)</td>
</tr>
<tr>
<td>Ed. 315</td>
<td>(3)</td>
</tr>
<tr>
<td>Health 301</td>
<td>(2)</td>
</tr>
<tr>
<td></td>
<td>(16)</td>
</tr>
</tbody>
</table>

Every prospective elementary teacher must have a field of concentration that includes thirty (30) semester-hours of course work, or the equivalent including advanced placement. Hours needed in addition to courses which may be taken in meeting the above requirements are listed by field as follows:

<table>
<thead>
<tr>
<th>Field</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology (Chemistry)</td>
<td>22</td>
</tr>
<tr>
<td>Chemistry (Mathematics)</td>
<td>22</td>
</tr>
<tr>
<td>English</td>
<td>12</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>15</td>
</tr>
<tr>
<td>History</td>
<td>24</td>
</tr>
<tr>
<td>Mathematics</td>
<td>24</td>
</tr>
<tr>
<td>Natural Science (must include eight (8) semester-hours in each of three sciences)</td>
<td>19</td>
</tr>
<tr>
<td>Physics (Mathematics)</td>
<td>22</td>
</tr>
<tr>
<td>Psychology</td>
<td>21</td>
</tr>
<tr>
<td>Social Studies (recommended from Anthropology 101, 102, Economics 102, geography, Government 103, history, Psychology 203, 401)</td>
<td>12</td>
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### Education

**301: EDUCATION FOUNDATIONS AND PRINCIPLES. [3]**

*Prerequisite: Sufficient hours of credit to total 63 by end of semester in which this course is taken.* Historical and philosophical foundations of education; the relationship between the educational institution and other institutions; the political, economic, sociological and educational implications of current educational problems;

#Ed. 410, Student Teaching, is an all-day program. Other courses offered this semester will meet daily in that half of the semester alternate with student teaching.
the relationships between educational objectives, the structure of the educational system, and curricula.

311: EDUCATIONAL PSYCHOLOGY. [3]
Prerequisite: Education 301. Deals with concepts of intelligence; motivation of pupils; learning theory; evaluation of pupil progress; and the development of personality, social and emotional behavior, attitudes and skills of the pupil.

312: TEACHING METHODS IN THE ELEMENTARY SCHOOL. [3]
Prerequisite: Admission to Program of Teacher Education; corequisite: Education 311. Deals with the organization and direction of learning experiences provided for children in the elementary schools with emphasis upon balance in a good school day; develops understanding of approaches used in teaching, and in planning for teaching, with special consideration given to the fields of social studies and art.

313: SCIENCE FOR THE ELEMENTARY TEACHER. [3]
Prerequisite or corequisite: Education 314. An overview of the subject matter, curriculum sequence, materials, and procedures involved in the science program in the elementary school.

314: TEACHING OF READING AND LANGUAGE ARTS. [3]
Prerequisite or corequisite: Education 312. Methods of teaching the communication skills: reading, writing, vocabulary development, grammar, and speech, with emphasis upon normal children ages 6-13, Grades 1-7.

315: CHILDREN'S LITERATURE. [3]
Prerequisite or corequisite: Education 314. Survey of children's literature, including historical development, types, representative authors and illustrators, and principles of critical analysis through study of selected works. Includes study of reading habits and interests of children Grades 1-7, together with techniques for story telling and the presentation of literature to children.

321: TEACHING METHODS IN THE SECONDARY SCHOOLS. [3]
Prerequisite: Admission to Program of Teacher Education; corequisite: Education 311. Deals with organization and direction of learning experiences provided for youth in secondary schools; develops understanding of approaches used in teaching, and in planning for teaching.

322: USE OF TEACHING MATERIALS. [3]
Prerequisite or corequisite: Education 314 or 321. Teaching ma-
COURSES OF INSTRUCTION

terials and their use; develops understandings and skills essential to wise selection and use.

410: STUDENT TEACHING IN THE ELEMENTARY SCHOOL. [8]
Prerequisites: Education 314, ninety-three semester-hours counting toward degree, grade points in George Mason credit in total and in professional education equalling 2.100 for each semester-hour enrolled in. An organized program including observation of children and of teaching, participation in the teacher's activities subsidiary to teaching, and actual teaching. Conducted in a public school, the experience provided will be in a grade consistent with the certification sought by the individual prospective teacher. Full day for one-half semester.

411: STUDENT TEACHING IN THE SECONDARY SCHOOL. [6]
Prerequisites: Education 321, ninety-three semester-hours counting toward degree, grade points in George Mason credit in total and in professional education equalling 2.100 for each semester-hour enrolled in. An organized program including observation of pupils and teachers in high school, participation in teachers' activities, subsidiary to teaching, and actual teaching. Conducted in a public school, the experience provided will be in a grade and subject field(s) consistent with the certification sought by the individual prospective teacher. Half-day for one semester.

Health

210: PERSONAL AND COMMUNITY HEALTH. [2]
This course is designed to develop knowledge, understanding, attitudes and desirable practices related to personal and community health.

301: HEALTH AND PHYSICAL EDUCATION FOR THE ELEMENTARY TEACHER. [2]
Prerequisites: Health 210 and two semester-hours of physical education or equivalent, and admission to the Program in Teacher Education. This course applies only to the Bachelor of Science in Education Degree. An overview of the subject matter, curriculum sequence, materials and procedures involved in elementary school health and physical education. Includes principles for the maintenance of healthful conditions in the classroom.
Physical Education

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. Can not be counted within the 120 hours necessary for the B.A. degree. May be counted within the 124 hours required for the B.S. in Education degree.

101: SOCCER AND VOLLEYBALL. [1] For Men
102: BASEBALL AND PADDLE TENNIS. [1] For Men
121: FLAG FOOTBALL AND BASKETBALL. [1] For Men
123: TENNIS. [1] For Men
111: BASKETBALL AND SOCCER. [1] For Women
112: SOFTBALL AND BADMINTON. [1] For Women
131: VOLLEYBALL AND FIELD HOCKEY. [1] For Women
133: TENNIS. [1] For Women
140: GOLF. [1] Co-Educational, (Student fee, $10.00)
Department of History

Assistant Professors Pugh, Rinehart, Spindler
Acting Assistant Professor Gleissner
Instructors Cohen, M.
Lecturers Pacheco, Soder, Tsow

Requirements for the Major

Students desiring to receive the Bachelor of Arts degree in history shall present thirty-three hours of history and must include at least three hours of historiography. 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.

Courses

101, 102: HISTORY OF WESTERN CIVILIZATION. [3, 3]
The historical development of western institutions, ideas, and cultures from antiquity to modern times. Emphasis will be given to the origin and development of those institutions and ideas that have been incorporated into American traditions.

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.

201: MEDIEVAL EUROPEAN HISTORY. [3]
Medieval history from the fall of Rome: barbarization of the West; growth of the Church, rise of Islam; the Carolingian empire; Moslem and Greek cultures; development of feudalism; feudal particularism; empire and papacy; developments in education, arts, and architecture; the crusades. To 1200 A. D.
202: MEDIEVAL EUROPEAN HISTORY. [3]
The Middle Ages from the thirteenth century: triumph of the
papacy; church and state and the growth of opposition to the
papacy; the Hundred Years War; decline of the Church; Renais-
sance and Reformation; expansion of secular culture; society, com-
merce, and exploration to the beginning of the sixteenth century.

203: THE EMERGENCE OF MODERN EUROPE. [3]
The history of western Europe from the sixteenth century to the
defeat of Napoleon. The transition of political, economic, and so-
cial institutions from their medieval to their modern forms; the
secularized products of religious revolt, and the world-wide expan-
sion of European influence and patterns.

204: CONTEMPORARY EUROPE. [3]
A survey of the impact upon Europe of the Enlightenment and
liberalism; population growth; industrialization and technology;
materialism; imperialism; popular revolutionary sentiment; the
collapse of the European state system; the rise of statism and au-
thoritarianism; the revolt from positivism; the new role of re-
constructed Europe in the present world.

221: FRONTIER HISTORY OF AMERICA. [3]
Prerequisite: History 121 or permission of instructor. The history
of the expansion, exploration, settlement, and building of the
frontier, with emphasis on problems of defense, communication,
finance and markets; the development of institutions; the cultural
and political influence of the frontier.

222: HISTORY OF THE OLD SOUTH. [3]
Prerequisite: Six hours of history or permission of instructor. The
history of the South to the outbreak of the Civil War, with particu-
lar emphasis on the rise of sectionalism. The development of a
distinct southern culture is traced through the emergence of eco-
nomic, political, social, agricultural and intellectual institutions.

321: CULTURAL AND INTELLECTUAL HISTORY OF THE
UNITED STATES: 1700-1865. [3]
Prerequisite: Six hours of American history or permission of in-
structor. An inquiry into the cultural and intellectual currents in
America to 1865: The Puritan mind and its legacy; the Enlighten-
ment in America; American nationalism; the rise of social democ-
rracy; development of American liberalism and conservatism; re-
vivalism and other religious developments; industrialism, liberal
capitalism, and the idea of progress.
COURSES OF INSTRUCTION

322: CULTURAL AND INTELLECTUAL HISTORY OF THE UNITED STATES SINCE 1865. [3]
Prerequisite: Six hours of American history or permission of instructor. 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.

331: ENGLAND THROUGH THE REVOLUTION OF 1688. [3]
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.

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

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

405: HISTORY OF EUROPE SINCE 1914. [3]
Prerequisite: Six hours of history or permission of instructor. A survey of major political changes in Europe since 1914 with emphasis upon broad patterns of ideological conflict.
408: HISTORY OF SPAIN AND PORTUGAL. [3]
Development of Spain and Portugal from prehistoric times to the present, noting particularly factors related to their former empires in America.

421, 422: DIPLOMATIC HISTORY OF THE UNITED STATES. [3, 3]
Prerequisite: History 121, 122 or permission of instructor. 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 1890.

427: AMERICAN ECONOMIC HISTORY. [3]
Prerequisite: History 121, 122 or permission of instructor. A general survey of the history of American economic thought and development from colonial times to the present with stress upon the growth of modern economic institutions and the role of economic factors in the evolution of contemporary industrial America.

431: TUDOR AND STUART ENGLAND. [3]
A history of England from the Battle of Bosworth Field to the revolutionary Act of Settlement of 1701.

441: THE RISE OF RUSSIA. [3]
Prerequisite: History 101 and 102 or permission of instructor. The development of the Russian Empire and its institutions from the early Christian era to the Revolution of 1917.

442: MODERN RUSSIA AND THE SOVIET UNION. [3]
Prerequisite: History 101 and 102 or permission of instructor. Causes of the revolution, the rise of Bolshevism, Lenin’s leadership and the formation of the Soviet Union, and the economic, political, and social developments in the U.S.S.R. under Stalin and his successors.

451: EAST ASIAN CIVILIZATION. [3]
Prerequisite: Six hours of history or permission of instructor. The histories of China, Japan, Korea, and North Vietnam prior to the arrival of the Europeans.

452: EAST ASIAN CIVILIZATION. [3]
Prerequisite: Six hours of history or permission of instructor. The histories of China, Japan, Korea and related Asian areas after the arrival of the Europeans in the nineteenth century.
COURSES OF INSTRUCTION

480: HISTORIOGRAPHY. [3]
Prerequisite: Open only to senior majors in history. A student may not present more than six hours of historiography for graduation credit. Intensive reading and lectures into at least one of the following fields: Hist. 480A, AMERICAN HISTORIOGRAPHY; Hist. 480B, EUROPEAN HISTORIOGRAPHY, to include the preparation of a major research paper to acquaint the student with techniques and problems of historical research and writing.
Department of Humanities

Professor McFarlane (Chairman)
Assistant Professors McDaniel, McDermott, Shea
Acting Assistant Professor Yance
Instructor Banks
Lecturers Kanyan, Reder

ART COURSES

101, 102: ART APPRECIATION. [3, 3]
Prerequisite: Art 101 is prerequisite for Art 102. A general introduction to principles of art by means of a study of periods, styles and great personalities in painting, sculpture and architecture from prehistoric times to the present. First semester: Prehistoric through Medieval. Second semester: Renaissance through modern.

103, 104: DRAWING. [3, 3]
Prerequisite: Art 103 is prerequisite for Art 104. Elementary course in representational drawing and expressive pictorial design. Nine hours per week.

201, 202: OIL PAINTING. [3, 3]
Prerequisite: Art 201 is prerequisite for Art 202. A basic course in the fundamentals of oil painting. Nine hours per week.

211, 212: BEGINNING LIFE DRAWING. [3, 3]
Prerequisite: Art 103 and 104, or permission of the instructor. A basic course in the fundamentals of drawing the human model. Nine hours per week.

215, 216: BEGINNING SCULPTURE. [3, 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. Nine hours per week. Not offered in 1969-70.

221, 222: HISTORY OF ANCIENT ART. [3, 3]
A broad, generic course in the aesthetics and art history of ancient cultures. Not offered in 1969-70.

231, 232: HISTORY OF MODERN ART [3, 3]
A brief review 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. Not offered in 1969-70.
MUSIC COURSES

The College Chorus and Concert Band are organized under the direction of the Music Faculty. The Chorus will study and perform works from the choral repertoire, and is open to all students in satisfactory academic standing. The Band is open to those students with a reasonable amount of performing ability and who are in satisfactory academic standing. No college credit.

101, 102: MUSIC APPRECIATION. [3, 3]
Prerequisite: Music 101, or permission of the instructor, is prerequisite to Music 102. An introduction to music appreciation through formal and aesthetic principles. The elements of music are examined separately and as combined in various musical forms. A brief survey of Medieval and Renaissance music leads into a more intensive study of music from the eighteenth century to the present, culminating in the discrimination of contrasting styles of music.

113: SIGHT SINGING AND EAR TRAINING I. [2]
Prerequisite: Some ability to read music or permission of the instructor. The student will be taught to sing a line of music without the accompaniment of an instrument. Sol-fa syllables will be used. Matching tones, major and minor scales, key signatures, intervals, rhythm. Rhythmic and melodic dictation. Three hours per week.

114: SIGHT SINGING AND EAR TRAINING II. [2]
Prerequisite: Music 113. Continuation of Sight Singing and Ear Training I. Alto and tenor clefs. Melodic and harmonic dictation. Three hours per week.

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

116: HARMONY II. [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.

251: MUSIC FOR THE ELEMENTARY TEACHER. [3]
Prerequisite: Admission to the Teacher Education Program. Fundamentals of musicianship and development of musical appreciation and ability to a level appropriate for the classroom teacher; principles and illustrations of musical activities suited to children of different grade levels. One additional hour per week is required in performance practice.

PHILOSOPHY COURSES

101: INTRODUCTION TO PHILOSOPHY: 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 economics, society, and government in their relation to human welfare in general.

102: INTRODUCTION TO PHILOSOPHY: 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.

104: INTRODUCTION TO PHILOSOPHY: 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.

201: ETHICS. [3]
Prerequisite: Sophomore standing or permission of instructor. A consideration of some basic theories of the good life. Reading and discussion of such writers as Plato, Aristotle, Butler, Mill, Kant.

202: METAPHYSICS. [3]
Prerequisite: Sophomore standing or permission 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. Readings from three or four leading figures such as Plato, Aristotle, Aquinas, Leibnitz, Kant, Bradley, Heidegger.
203: PHILOSOPHY OF RELIGION. [3]
Prerequisite: Sophomore standing or permission 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 lan-
guage in contemporary empirical philosophy.

301, 302: HISTORY OF PHILOSOPHY. [3, 3]
Prerequisite: Six hours in philosophy and junior standing or per-
m ission 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, Leibnitz, Locke, Berkeley,
Hume, Kant, Hegel, Bergson, Whitehead, the Pragmatists, and
others.

303: PHILOSOPHY OF MIND. [3]
Prerequisite: Six hours in philosophy and junior standing or per-
mission of the instructor. A study of some traditional and con-
temporary views regarding the nature of mind, its relation to the
physical world and to behavior, and the discoverability of mental
processes.

304: MODERN ETHICS. [3]
Prerequisite: Six hours in philosophy and junior standing or per-
mission 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.

306: CONTEMPORARY PHILOSOPHY. [3]
Prerequisite: Six hours in philosophy and junior standing or per-
mission of the instructor. A study of some recent contemporary
philosophical movement, writing, or topic.

RELIGION COURSES

101: THE LITERATURE AND RELIGION OF THE BIBLE
I. [3]
A survey of the development of the Old Testament and intertesta-
mental 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.

203: 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.

204: THE RELIGIONS OF THE WORLD. [3]
A survey of the origin, development, and patterns of man's re-
ligions, including primitive and ancient national religions; the
religions of India and East Asia; religions of the Near East.
Department of Languages

Professors Jackson (Chairman), Brown
Associate Professors Arriola, Karlson
Assistant Professors Brooks, Bufill, Cordero, Duke, Elstun, Evans, Garson, Golinkin, Schlesinger, Sehrt, Walls
Instructors Carter, Gallehr, Houston, LeBeau, Lowderbaugh, Lynch, Palmieri, Urso
Lecturers Delaney, Duffner, Hobson, LePage, Peter, Rarick, Upchurch, Wekerle

ENGLISH

Requirements for the Major

Students majoring in English must complete thirty hours of course work beyond sophomore English, including English 301, 302, and six hours from English 309, 310, 313, 315, and 316. It is recommended that seniors take English 401 or 403.

Courses

101-102: COMPOSITION AND INTRODUCTION TO LITERATURE. [6]
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 the analysis and appreciation of major literary types.

201, 202: MASTERPIECES OF ENGLISH AND AMERICAN LITERATURE. [3, 3]
Prerequisite: English 101-102. Major literary works from various periods and genres. Such authors as Chaucer, Shakespeare, Swift, Keats, Shaw, Conrad, Forster, and Yeats are read in the first semester; such authors as Poe, Hawthorne, Melville, Whitman, James, Frost, Hemingway and Faulkner are read in the second semester.

203, 204: WESTERN LITERARY MASTERWORKS. [3, 3]
Prerequisite: English 101-102. A study in translation of some of the great works of Western civilization by such writers as Homer, Sophocles, Euripides, Dante, Voltaire, Flaubert, Galdos, Dostoievski, Tolstoy, Mann, Camus, Brecht, Hesse, and Sartre.
The student will normally select and complete either English 201, 202 or 203, 204. After completing one semester of one course, the student may not shift to the other course without permission of the Department of Languages.

English 101-102 and 201, 202 or 203, 204 are prerequisites for all English 300 and 400 courses.

301, 302: SHAKESPEARE. [3, 3]
Twenty selected plays. First semester emphasizes histories and comedies; second semester, tragedies and romances.

305, 306: 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.

309, 310: ENGLISH POETRY AND PROSE OF THE NINETEENTH CENTURY. [3, 3]
A study of the major poets and essayists of the nineteenth century. The first semester deals with the Romantic writers, the second with Victorian.

311: CONTEMPORARY ENGLISH POETRY AND PROSE. [3]
Reading and analysis of works by major English poets and prose writers from 1900 to the present.

312: CONTEMPORARY AMERICAN POETRY AND PROSE. [3]
Reading and analysis of major American poets and prose writers from 1900 to the present.

313: ENGLISH POETRY AND PROSE OF THE SEVENTEENTH CENTURY. [3]
English poetry and prose from 1603 to 1688, excluding Milton.

315: 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 Swift and Pope.

316: 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.
319: GENERAL LINGUISTICS. [3]
Introduction to general linguistics: phonics, phonemics, morphology, and syntax.

Introduction to 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.

323, 324: THE DEVELOPMENT OF THE ENGLISH NOVEL. [3, 3]
The history of the English novel with intensive critical reading of representative works. English 323 concerns the English novel from its beginnings through the mid-nineteenth century and deals with such writers as Fielding, Sterne, Austen, Emily Brontë, Thackeray, and Dickens. English 324 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, Carey, Powell and Golding.

327: DEVELOPMENT OF THE AMERICAN NOVEL. [3]
Study of the American novel from its beginnings to World War II, with intensive critical reading of representative works. The course deals with such authors as Cooper, Melville, Hawthorne, Twain, James, Dreiser, Hemingway, Faulkner, and Wolfe.

330: FAR EASTERN LITERATURE IN TRANSLATION. [3]
The study of selected masterpieces of Chinese and Japanese literature, in English translation, from early and modern periods. The course includes study of such works as Chinese folk novels, The Tale of Genji, Chinese and Japanese plays, philosophical writings, and modern narratives. Not accepted in the English major.

401: 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.

403: CREATIVE WRITING AND ADVANCED COMPOSITION. [3]
Theory and practice of expository prose; guidance in creative writing.

404: SEMINAR IN CREATIVE WRITING. [3]
Prerequisite: consent of department, based on samples of student's
work. Intensive study of the theory and practice of creative writing. Intended for students already writing original fiction, poetry, or drama.

420: SELECTED STUDIES. [3]
Semester courses in special subjects of importance to English major students. Subjects will be offered as needed. Representative subjects are:

420A: English Literature of the Sixteenth Century.
420B: Chaucer.
420C: Milton.
420D: Literature of the American Renaissance.
420E: Colonial and Federalist American Literature (1607-1830).

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.

FRENCH

Requirements for the Major

The major in French is intended to develop participating students' ability to speak, read, and write French and to increase their knowledge of French literature, history, and culture. On completion of the major, students should be able to meet requirements for a high school teaching certificate, do graduate work in French, or qualify for government positions requiring a knowledge of French.
COURSES OF INSTRUCTION

Twenty-four semester-hours of work in advanced French courses (not to include French 301, 302) are required for the major. French 303 is required for major students. In order to be eligible to major in French, a student should have at least a “C” average in his previous French courses.

**Courses**

Essentials of grammar; reading; oral and aural training. French is used increasingly in the classroom as the session progresses. One additional hour per week is required in the language laboratory.

103: REVIEW OF ELEMENTARY FRENCH. [3]
An intensive review of the French grammar, syntax, and pronunciation normally taught in French 101-102. Designed for students entering with two years of secondary French but with inadequate control of the language to register in French 201. Students may not receive credit for both French 101-102 and 103. One additional hour per week is required in the language laboratory.

201-202: INTERMEDIATE FRENCH. [6]
Prerequisite: French 101-102 or equivalent. Advanced reading and grammatical study; oral and written exercises or reports. French is used in the classroom. One additional hour per week is required in the language laboratory.

301, 302: INTRODUCTION TO FRENCH LITERATURE. [3, 3]
Prerequisite: French 201-202 or equivalent. Readings in selected works of French literature. French is used in the classroom.

303, 304: FRENCH CONVERSATION AND COMPOSITION. [3, 3]
Prerequisite: French 202. Intended primarily for French majors, French 303 is required in the major program. Topical conversation and frequent written and oral reports. Both semesters provide instruction in speaking and writing French, but speaking ability is emphasized in French 303 and writing ability is stressed in French 304. (Not intended to satisfy degree requirements in foreign language.)

305: FRENCH LITERATURE OF THE RENAISSANCE. [3]
Prerequisite: French 301, 302. Renaissance poetry and prose, with emphasis on the works of Rabelais and Montaigne.
306: FRENCH LITERATURE OF THE EIGHTEENTH CENTURY. [3]
Prerequisite: French 301, 302 or permission of instructor. A study of the literature of the eighteenth century, especially the works of Montesquieu and Voltaire.

307, 308: FRENCH LITERATURE OF THE SEVENTEENTH CENTURY. [3, 3]
Prerequisite: French 301, 302. A study of the major works of literature of the French classical period, with emphasis on the works of Corneille, Descartes, Pascal, Moliere, Racine, and La Fontaine.

309, 310: MAJOR FRENCH NOVELISTS OF THE NINETEENTH CENTURY. [3, 3]
Prerequisite: French 301, 302 or permission of instructor. Study of the major works of such authors as Hugo, Zola, Balzac, Stendhal, Flaubert, Maupassant, and Huysmans.

311, 312: FRENCH LITERATURE OF THE NINETEENTH CENTURY. [3, 3]
Prerequisite: French 301, 302 or permission of instructor. The poetry and theater of the romantic, realist, and symbolist periods; emphasis on study of the works of Baudelaire and Rimbaud.

315: FRENCH CULTURE AND CIVILIZATION. [3]
Prerequisite: French 201-202 or permission of instructor. A study of the intellectual history of France and of the development of the major trends in French culture, arts, and sciences.

317, 318: FRENCH LITERATURE OF THE TWENTIETH CENTURY. [3, 3]
Prerequisite: French 301, 302 or permission of instructor. Study of the principal literary trends and authors in French literature since 1900. In French 317, such authors as Proust, Gide, Claudel, and Valéry are studied; in French 318, such authors as Malraux, Sartre, Camus, Robbe-Grillet, Ionesco, and Beckett.

320: LINGUISTICS OF THE FRENCH LANGUAGE. [3]
Prerequisite: English 319. A course in the linguistics of the French language, including phonemics and morphology.

321: FRENCH STYLISTICS. [3]
Prerequisite: French 301, 302. Methods and terminology for critical analysis of French style; reading of texts and writing of exercises.
GERMAN COURSES

Introductory training in the speaking, understanding, reading, and writing of German. German is used increasingly in the classroom as the session progresses. One additional hour per week is required in the language laboratory.

201-202: INTERMEDIATE GERMAN. [6]
Prerequisite: German 101-102 or equivalent. Training in the speaking, understanding, reading and writing of German. German is used in the classroom. One additional hour per week is required in the language laboratory.

301, 302: INTRODUCTION TO GERMAN LITERATURE. [3, 3]
Prerequisite: German 201-202 or equivalent. Readings in selected works of German literature. German is used in the classroom.

401, 402: GERMAN LITERATURE SINCE GOETHE. [3, 3]
Prerequisite: German 301, 302 or permission of department. Introduction to German literature since Goethe. German 401 gives instruction in the prose, drama, and lyric poetry of such writers as Heine, Hebbel, Buchner, Stifter, Storm, and Meyer; German 402 analyzes works of such writers as Hauptmann, Hofmannsthal, Rilke, Mann, Kafka, Brecht, Grass, Böll, Celan and Eich.

SPANISH

Requirements for the Major

The major in Spanish is intended to develop students' oral and written ability with the language, their reading proficiency, and their knowledge of the literature, culture, and history of Spain and of Spanish-speaking North and South America. On completion of the major, the student should be able to meet state requirements for a secondary teaching certificate, do graduate study in Spanish, or qualify for government positions requiring a knowledge of Spanish.

Twenty-four semester-hours in advanced Spanish courses (not including Spanish 301, 302) are required for the Spanish major. The student who intends to major in Spanish may enroll in Spanish 305, 306 in place of Spanish 301, 302. The major student will find it useful to complete some of these related courses: English 319 (General Linguistics), English 203, 204 (Western Literary Masterworks), and History 361, 362 (Latin-American History).
Courses

Essentials of grammar; reading; oral and aural training. Spanish is used increasingly in the classroom as the session progresses. One additional hour per week is required in the language laboratory.

103: REVIEW OF ELEMENTARY SPANISH. [3]
An intensive review of the Spanish grammar, syntax, and pronunciation normally taught in Spanish 101-102. Designed for students entering with two years of secondary school Spanish but with inadequate control of the language to register in Spanish 201. Students may not receive credit for both Spanish 101-102 and 103. One additional hour per week is required in the language laboratory.

201-202: INTERMEDIATE SPANISH. [6]
Prerequisite: Spanish 101-102 or equivalent. Advanced reading and grammatical study; oral and written work. Spanish is used in the classroom. One additional hour per week is required in the language laboratory.

All 300- and 400-level courses except Spanish 320 are given in Spanish.

301: INTRODUCTION TO SPANISH LITERATURE AND CIVILIZATION. [3]
Prerequisite: Spanish 201-202 or equivalent. Introduction to Spanish literature, with study of Spanish history and culture.

302: INTRODUCTION TO SPANISH-AMERICAN LITERATURE AND CIVILIZATION. [3]
Prerequisite: Spanish 201-202 or equivalent. Introduction to Spanish-American literature, with study of the history and culture.

303, 304: ADVANCED COMPOSITION AND CONVERSATION. [3, 3]
Prerequisite: Spanish 202. The course is designed to develop fluency in the spoken language and the ability to write compositions in Spanish. Spanish 303 is intended to improve speaking ability and give some instruction in writing; instruction in writing is emphasized in Spanish 304, and further instruction in speaking is given. (Not intended to satisfy degree requirements in foreign language.)

305, 306: SURVEY OF SPANISH LITERATURE. [3, 3]
Prerequisite: Spanish 201-202. A survey of major movements and
authors of Spanish literature, from early times to the present, in the major genres. Additional collateral readings.

307: SURVEY OF LATIN-AMERICAN LITERATURE. [3]

Prerequisite: Spanish 201-202. A survey of the development of the poetry, novel, drama, essay and short story in Spanish America from the colonial period to the present. Collateral readings. Spanish majors should take this course.

309, 310: LITERATURE OF THE GOLDEN AGE. [3, 3]

Prerequisite: Spanish 301, 302 or 305, 306. 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 Alcón, Quevedo and Calderon.

313, 314: SPANISH LITERATURE OF THE NINETEENTH CENTURY. [3, 3]

Prerequisite: Spanish 301, 302 or 305, 306. A study of the major works of nineteenth-century Spanish literature. The first semester studies works of such authors as Duque de Rivas, Zorrilla, Antonio de Alarcón, and Galdós; the second semester studies the works of such figures as Becquer, Alas, Blasco Ibáñez and Rubén Darío.

320: LINGUISTICS OF THE SPANISH LANGUAGE. [3]

Prerequisite: English 319. Study of the phonology, morphology, and syntax of the Spanish language. The course is intended for students planning to teach Spanish or enter graduate work in Spanish.

403, 404: CONTEMPORARY SPANISH LITERATURE. [3, 3]

A study in depth of main works of Spanish literature from the "generation of '98" to the present, with emphasis on works of Unamuno, Valle-Inclán, Baroja, A. Machado, Benavente, Azorín, Lorca, Cela, Buero, and Goytisolo.
Department of Mathematics

Professor Mayer (Chairman)
Associate Professor Cole
Assistant Professors Cabell, Smith, Turner
Acting Assistant Professor Abbud
Instructors Leftoff, Mullen
Lecturer Benzinger

Students Who Do Not Major
In Mathematics

Designed for the students in the social and behavioral sciences are Mathematics 103, 104, 252, and 261. Students in a teacher program should choose their courses from 103, 104, 106, 200, 221, 232 and 261. We advise every liberal arts major to take either Mathematics 106 or the sequence 103, 104, and possibly 261. Students in the physical sciences who plan to do graduate work are advised to add to their basic calculus sequence from Mathematics 266, 317, 322, 351, 352, 411, 446, 447.

Requirements for the Major

To qualify for a B.A. degree in mathematics a student must satisfy all the degree requirements for graduation from the College. The basic courses for the major in mathematics are Mathematics 115, 116, 215 and 216. In addition, the B.A. requires at least 15 more hours, of which 9 hours must be numbered above 300. Mathematics 113, 114, 213 and 214 are not recommended for mathematics majors. The following courses do not count toward satisfying the requirements for a mathematics major: Mathematics 103, 104, 106, 252, 261 and 371.

Courses

In exceptional cases the prerequisite for a course above the calculus sequence may be waived at the discretion of the instructor.
(Course numbers in parentheses show former catalog listing.)

100: Basic Mathematics. [0]
College algebra and trigonometry. One semester course of three hours per week without credit. To be taught in summer session.
COURSES OF INSTRUCTION

103, 104: FINITE MATHEMATICS. [3, 3]
Logic, elementary set theory, elementary probability, linear pro-
gramming, applications.

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

113, 114, 213 (113, 114, 203): ANALYTIC GEOMETRY AND
CALCULUS, I, II, III. [4, 4, 3]
Must be taken in sequence. Analytic geometry, functions, differen-
tiation, integration, probability. Applications to the sciences.

Must be taken in sequence. Analytic geometry, functions, differenti-
tion and integration in several dimensions, infinite series, dif-
ferential equations.

200: FOUNDATIONS OF MATHEMATICS. [3]
Prerequisite: Mathematics 116. Real numbers, axiom systems, naive
set theory, cardinal and ordinal numbers.

214 (204): ELEMENTARY DIFFERENTIAL EQUATIONS. [3]
Prerequisite: Mathematics 213. Linear differential equations and
their solutions, partial differential equations, applications.

221: NUMBER THEORY. [3]
Prerequisite: Mathematics 116. Prime numbers, factorization, con-
gruences, Diophantine equations.

232: GEOMETRY. [3]
Prerequisite: Six semester hours in mathematics. Fundamental con-
cepts of incidence. Axioms of Euclidean geometry and the result-
ing theory, axioms and development of non-Euclidean and pro-
jective geometry.

252 (207): INTRODUCTORY STATISTICS. [3]
Prerequisite: Mathematics 104 or 114. Probability distributions,
correlation, variance, T-test, chi-square test.

261: INTRODUCTION TO COMPUTERS. [2]
Prerequisite: Mathematics 103 or 106. 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

http://catalog.gmu.edu
and its logic. Flow charts. A study of various languages, basic programming and its application to various problems in mathematics and the physical sciences.

315, 316 (301, 302): ADVANCED CALCULUS. [3, 3]
Prerequisite: Mathematics 216. Elementary topology, limits, continuity, differentiation, integration, and series.

317: ORDINARY DIFFERENTIAL EQUATIONS. [3]
Prerequisite: Mathematics 216. Linear ordinary differential equations, systems of differential equations, asymptotic expansions, numerical methods.

321 (206): ABSTRACT ALGEBRA. [3]
Prerequisite: Mathematics 216. Theory of groups, rings, fields.

322 (205): LINEAR ALGEBRA. [3]
Prerequisite: Mathematics 321. Vector spaces, linear independence, bases, linear transformations, matrix algebra, inner product, special topics.

351: PROBABILITY. [3]
Prerequisite: Mathematics 216. Random variables, probability functions, special distributions, limit theorems, Markov chains, stochastic processes.

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

371 (303): MATHEMATICS FOR THE ELEMENTARY SCHOOL TEACHER. [3]
Prerequisite: Forty-five semester-hours of college credit, including three semester-hours of mathematics and admission to the program for elementary teachers. Concepts and theories underlying elementary school mathematics.

391, 392: READING AND PROBLEMS. [1-3, 1-3]
Enrollment restricted to mathematics majors. Independent study in mathematics.

411 (401): FUNCTIONS OF A COMPLEX VARIABLE. [3]
Prerequisite: Mathematics 316. Complex numbers, functions, conformal mappings, contour integration, applications.

416 (402): FUNCTIONS OF A REAL VARIABLE. [3]
Prerequisite: Mathematics 316. Measure theory, Lebesgue integral, convergence theorems, special topics.
COURSES OF INSTRUCTION

431: TOPOLOGY. [3]
Prerequisites: Mathematics 216 and six hours of mathematics at or above the 300 level. Metric spaces, topological spaces, compactness, connectedness.

441, 442 (405, 406): APPLIED MATHEMATICS. [3, 3]

446, 447 (403, 404): NUMERICAL ANALYSIS AND DIGITAL COMPUTATION. [3, 3]
Prerequisite: Mathematics 216. 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

Professor Johnston (Chairman)
Associate Professor Mielczarek
Assistant Professor Papaconstantopoulos
Instructor Day
Lecturers Clark, Dowe, Fedel, Lieberman

REQUIREMENTS FOR THE MAJOR

Those students who intend to pursue a graduate degree in physics or intend to terminate their studies at the Bachelor's level should complete no less than forty-one semester hours in physics. Those students who wish primarily to be prepared for certification to teach physics in secondary schools must elect no less than thirty-six semester-hours in physics.

Physics majors are required to complete Mathematics 113, 114, 213, 214 by the end of the sophomore year. In the junior and senior years at least three additional mathematics courses should be elected. Chemistry 101-102 or Biology 101-102 should be completed by the end of the freshman year. It is recommended that the language requirement be fulfilled by German or French.

COURSES

101-102: INTRODUCTORY COLLEGE PHYSICS. [8]
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.

*104: GENERAL PHYSICS I. [3]
Prerequisite: Mathematics 113. Corequisite: Mathematics 114. Mechanics, wave motion, properties of matter. Three hours lecture, one hour recitation.

201: SCIENCE AND TECHNOLOGY IN THE CONTEMPORARY ENVIRONMENT. [3]
No prerequisite. A survey of science and technology with emphasis

*The three-semester sequence, Physics 104, 205, 206 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.
on their interaction with our contemporary culture. This course will include qualitative familiarization with science beneath the earth, on the earth, in near space and in outer space as it relates to our civilization. Three hours lecture.

205: GENERAL PHYSICS II. [5]
Prerequisite: Physics 104 and Mathematics 114. Corequisite: Mathematics 213. Electricity and magnetism. Three hours lecture, four hours laboratory or supervised work.

206: GENERAL PHYSICS III. [5]
Prerequisite: Physics 205, and Mathematics 213. Corequisite: Mathematics 214. Physical optics, atomic and nuclear physics. Three hours lecture, four hours of laboratory or supervised work.

301: ELECTRONICS LABORATORY. [2]
Prerequisite: Physics 205 or permission of the instructor. A laboratory course in electronics; design and operational characteristics of power supplies, amplifiers, oscillators; servo mechanisms, switching, timing, and digital counting circuits. Six laboratory hours.

303: CLASSICAL MECHANICS. [3]
Prerequisite: Physics 206, 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: ELECTRICITY AND MAGNETISM. [3]

306: WAVE MOTION AND ELECTROMAGNETIC RADIATION. [3]
Prerequisite: Physics 305. Vibrating string, plane waves, interference, diffraction, polarization, electromagnetic waves, dispersion, relativity. Three lecture hours.

402, 403: AN INTRODUCTION TO QUANTUM MECHANICS AND ATOMIC 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 lecture hours.
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 lecture hours.

407, 408: SENIOR LABORATORY IN MODERN PHYSICS. [3, 2]
Prerequisite: Senior status. Experiments in modern physics involving advanced techniques in electronics, optics, nuclear physics and solid state. Typical experiments: the Franck Hertz Experiment, Hall Effect, electron paramagnetic resonance, Mossbauer Effect. Physics 407, nine laboratory hours. Physics 408, six laboratory hours.

410: SOLID STATE PHYSICS. [3]
Prerequisite: Physics 402. Crystal structures, binding, lattice vibrations, the free electron model, metals, semi-conductors, super-conductivity, magnetism. Three lecture hours.

412: MATHEMATICAL PHYSICS. [3]

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.

ENGINEERING COURSES
(Two Years Only)

Those students planning to take engineering at George Mason College can complete a two-year course and in most cases meet the prerequisite requirements at most universities for the third year. About 70% of the engineering students will have all of the requirements to enter the junior year at the University of Virginia. They may still be lacking a few semester hours in their electives which may be taken during the summer or in the junior or senior year. See Chapter VI, page 52.
COURSES OF INSTRUCTION

181: ENGLISH GRAPHICS I. [3]
The first half of a two semester course in fundamentals of drawing. Lettering, geometric construction, multiview drawing and sketching, pictorial drawing and sketching, sectioning, auxiliary views, dimensioning and assembly drawing. One hour lecture, four hours laboratory.

182: ENGLISH GRAPHICS II. [1]
Prerequisite: Engineering 181. Second semester topics are points, lines, planes, curved surfaces, development, and vectors. One hour lecture, two hours laboratory.

185: STATICS. [2]
Corequisite: Mathematics 115. Resolution and composition of forces by analytical and graphical methods. Analysis of forces in trusses, frames and flexible cables.

186: DYNAMICS. [2]

210: STATICS. [3]

211: DYNAMICS. [3]

Prerequisites: Chemistry 101-102; Physics 104. Corequisite: Mathematics 215. Concept of stress, strain, material structure, failure. Analysis of stresses in elastic and plastic solids. Application to flecture and torsion, deflections of beams and column, combined stresses.

282: THERMODYNAMICS. [3] (Offered February 1971)
Prerequisite: Mathematics 215 and Physics 104. Corequisite: Mathe-
mathematics 216. 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 thermodynamic processes.

Prerequisites: Engineering 186; Mathematics 116; Physics 104.

286: ELECTRONICS. [4] (Offered February 1971)
Prerequisite: Engineering 285. Bridges and meters, tubes and transistors, RC amplifiers including high frequency response, simple feedback amplifiers, electronic instruments, transducers and power supplies. Three hours lecture, three hours laboratory.
COURSES OF INSTRUCTION

Department of Social Sciences

Professor Early (Chairman)
Associate Professors Mandes, Peterson, Phillips
Assistant Professors Cohen, E., Dominick, Khoury, McKeithen, Tongren
Instructors MacConkey, Skelly
Lecturers Cohen, S., Gibbons, Goldberg, Hartley, Hise, Wakefield

BUSINESS AND PUBLIC ADMINISTRATION

Requirements for the Major

The major program in Business and Public Administration culminates in a Bachelor of Arts degree and requires a minimum of 120 hours of courses. All degree requirements of the College as set forth in its academic regulations must be met.

Students entering George Mason College in September 1968 or thereafter to major in Business and Public Administration should carefully plan their schedules to include the following courses to be completed before graduation: Business Administration 101, 102, 232, 261-262, 310, 341, 421, 422, 434, and such others as they may opt to total not fewer than thirty-six hours in the major discipline.

Not more than forty-two hours 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. Elective courses particularly related to this major are History 427 (American Economic History), Psychology 402 (Psychology of Business and Industry), and Sociology 304 (Sociology of Industry). It is recommended, however, that most hours of elective work should be devoted to subjects that will broaden and deepen the students' general education.

Candidates for the Business and Public Administration degree shall also include Economics 101, 102, and 202 or 301, plus an additional three hours of economics or Government 241.

Students who enrolled in George Mason College prior to September 1968 must present the following courses: Business Administration 101, 102, 232, 261-262, 310, 434, and such other courses as they may choose to total not fewer than thirty-three hours in the major discipline. Not more than forty-two hours 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.

Elective courses particularly related to this major are History 427 (American Economic History), Psychology 402 (Psychology of
Business and Industry), and Sociology 304 (Sociology of Industry). However, most hours of elective work should be devoted to subjects that will broaden and deepen the students' general education. Candidates for the Business and Public Administration degree shall also include Economics 101, 102 and 202 or 301, plus an additional three hours of economics or Government 241.

Courses

101: ELEMENTARY ACCOUNTING. [3]
An overview of the accounting cycle with emphasis on preparation of work sheets and 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.

205, 206: INTERMEDIATE ACCOUNTING. [3, 3]
Prerequisite: Business Administration 101, 102 or permission of instructor. A detailed analysis of problems and the related theory concerning accounts normally found in financial statements. Preparation of supplementary and special reports for special accounting and managerial purposes.

212: INTRODUCTION TO DATA PROCESSING. [3]
A review of the types of systems and hardware in general use by business organizations, including mechanical and electronic processors.

231: INTRODUCTION TO BUSINESS. [3]
An introduction to the environmental factors of business from the viewpoint of management and its use of quantitative measures and controls. Theoretically oriented with attention to case studies and experiences designed to direct the students into analytical thinking about problems of business and economics.

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.
COURSES OF INSTRUCTION

A non-mathematical course designed for students in diverse fields of study, emphasizing the making of statistical inferences, determining confidence intervals, and testing statistical hypotheses for large and small samples: applications of the binomial, normal, student's t, chi square, and F distributions; correlation, variance and trend analysis; and the more common non-parametric tests.

302: QUANTITATIVE FACTORS IN BUSINESS. [3]
Prerequisite: Business Administration 261-262 or permission of instructor. An introduction to the use of quantitative methods for solving business problems. Limited mathematical adaptations of statistical methods and the development of simple models are involved.

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.

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.

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.

412: MARKETING MANAGEMENT. [3]
Prerequisite: Business Administration 310 or permission of instructor. The managerial aspects of marketing emphasizing the development of marketing strategies and plans and integrating the specific elements of the marketing process.

421, 422: BUSINESS LAW. [3, 3]
A survey of the more important general principles of law which apply to the daily activities of business operations: discussion of concepts and principles relating to the law of contracts, bailments, agency, sales, negotiable instruments, partnerships, bankruptcy, and other topics.

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.

434: INTRODUCTION TO ORGANIZATION AND MANAGEMENT. [3]
Prerequisite: Business Administration 231 or permission of instructor. An introductory examination of principles and problems of organization and management. The nature and techniques of planning in relation to managerial decision-making are stressed and attention is given throughout the semester to differences found in small versus large enterprises.

451: 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.

ECONOMICS

Requirements for the Major

Students majoring in economics must satisfy the area requirements set for the Bachelor of Arts degree at George Mason College. In addition they must present thirty-three hours of work in eco-
Courses of Instruction

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 42, but the surplus hours must be listed as elective hours on the degree application form.

Courses

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]
Prerequisite: Economics 101 or permission of instructor. 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.

301: MONEY AND BANKING. [3]
Prerequisite: Economics 101 and 102 or permission of instructor. An examination of monetary and of 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 economics 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: 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.

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, communism, 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 validity.

404: INTERNATIONAL ECONOMICS. [3]
Prerequisite: Economics 101 and 102 or permission of instructor. Government 132 is desirable. A survey of contemporary international economic relations with emphasis on the foreign economic policies of the United States, the balance of payments, international investments, foreign exchange, and international economic disequilibrium and adjustment.

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 current and proposed public policies.

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.

GOVERNMENT 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.

221: COMPARATIVE GOVERNMENT AND POLITICS. [3]
Prerequisite: Government 103 or permission of instructor. A comparative analysis of the backgrounds, forms, and activities of selected contemporary foreign governments, including those of England, France, West Germany, and the Soviet Union. Not offered during 1969-1970.

222: COMPARATIVE GOVERNMENT AND POLITICS: LATIN AMERICA. [3]
Prerequisite: Government 221 or permission of instructor. A study of the constitutional, political, and administrative systems of Latin America with attention to the political implications of economic development, nationalism, demography, and social reform. Not offered during 1969-1970.

231: FOREIGN POLICIES OF THE POWERS. [3]
Prerequisite: Government 132 or permission of instructor. Study of the foreign policies of the United States, of the other major powers, and of selected smaller powers.

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.

251: THE AMERICAN POLITY. [3]
An introductory survey of the organization for and methods of political interaction in the United States.

301: PUBLIC LAW AND THE JUDICIAL PROCESS. (Area Course III) [6]
Prerequisite: Completion of Government 103 and permission of in-
COURSES OF INSTRUCTION

structor by signature. Open only to juniors and seniors. An introduction to and analysis of selected aspects of judicial organization and operation, of the role of the judiciary in policy formation, and of important constitutional principles which have been evolved by decisions of the United States Supreme Court.

Government Area Course III is an experimental course. It will require considerable reading and independent study for which six hours of credit may be earned, but the class will meet the usual three contact hours per week. Only serious students who are willing to assume a major responsibility for their own education should elect this course. Enrollment will be strictly limited to 20 junior and senior students to be admitted without regard to major fields of study by signature of the instructor.

331: INTERNATIONAL LAW. [3]
Prerequisite: Government 132 or permission of instructor. Not open to freshmen. A study of the origin and development of international law and of its general principles relating to such subjects as the acquisition of statehood, recognition of new governments, rights and obligations of states, territorial jurisdiction, procedures for peaceful settlement of disputes, the laws of war and neutrality, and the legal character of international organization.

332: INTERNATIONAL ORGANIZATION. [3]
Prerequisite: Government 132 or permission of instructor. A study of the origin and development of international organization from the Concert of Europe to the United Nations. Emphasis is given to aspects of extranational organizations to illustrate the problems, powers, purposes, and limitations of their existence.

352: PUBLIC OPINION, PROPAGANDA, AND COMMUNICATION. [3]
An introduction to the nature, theories and techniques of public opinion and propaganda and to the theory, media, and problems of communications.

PSYCHOLOGY

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 College, thirty-five semester hours in psychology including Psychology 321, 322, and 411 must be presented. Students are strongly advised to elect
relevant courses in biology, philosophy, sociology, and anthropology in addition to these requirements.

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.

Courses

Prerequisite to all other courses in Psychology. Psychology 101 or permission of instructor is required for Psychology 102. An examination of the principles of behavior and of certain of the experimental data supporting them. Maturation of behavior; learning; motivation; emotion, sensory and perceptual processes; thinking; personality; measurement of ability; organic bases of behavior; small group behavior, and other social factors affecting behavior.

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. Journal and other literature is 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.

301: ABNORMAL PSYCHOLOGY. [3]
Prerequisite: Psychology 101-102 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.

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

321: STATISTICAL METHODS IN EXPERIMENTAL PSYCHOLOGY. [4]
Prerequisite: Psychology 101-102 and nine additional hours in psychology. A methodological approach to experimental psychology. The use of statistical inference techniques and experimental design found in contemporary psychological inquiry are examined. Three class hours, four laboratory hours.

322: EXPERIMENTAL PSYCHOLOGY. [4]
Prerequisite: Psychology 321 or permission of instructor. A content approach to experimental psychology. Lecture topics include classi-
cal 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, three laboratory hours.*

401: PSYCHOLOGICAL TESTS AND MEASUREMENTS. [3]  
*Prerequisite:* Psychology 101-102 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.

402: 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.

411: HISTORY AND SYSTEMS OF PSYCHOLOGY. [3]  
*Prerequisite:* Psychology 101-102 and six additional hours of psychology. A survey of the development of psychology from its earliest antecedents to the present. The historical continuity of important issues and ideas is stressed, and basic questions regarding the nature of psychological inquiry are disclosed.

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.

**SOCIIOLOGY COURSES**

101: INTRODUCTORY SOCIOLOGY. [3]  
An introduction to basic sociological concepts. Aspects of human behavior; individual and group interaction; social mobility and
COURSES OF INSTRUCTION

stratification; status and class; race relations; urbanism; crime and criminology; social change and reform.

102: 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.

232: SOCIOLOGY OF URBAN COMMUNITIES. [3]
Prerequisite: 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.

252: INTRODUCTION TO SOCIAL SERVICE. [3]
Prerequisite: Sociology 101 and 102. An introduction to the principles and methods of social work and to the philosophy, values, functions, methods, and values of social service as a profession.

301: 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.

302: SOCIOLOGY OF DELINQUENCY. [3]
Prerequisite: Sociology 101 or permission of instructor. An inquiry into the types, causes, treatment and prevention of delinquent behavior.

304: SOCIOLOGY OF INDUSTRY. [3]
Prerequisite: Sociology 101 or permission of instructor. An introductory survey of industrial sociology stressing: the relationship between industry and society; industry and the community; work groups and work relations; the role of workers in work groups; and the social organization within industry.

305: POPULATIONS. [3]
Prerequisite: Sociology 101 or permission of instructor. An exami-
nation of characteristics and problems of world and domestic populations relative to age, sex, distribution and of their significant consequences for survival and social change.

307: SOCIOLOGY OF COLLECTIVE BEHAVIOR. [3]
Prerequisite: 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: Sociology 101 or permission of instructor. Sociology 102 is desirable. An examination of ethnic and nationality minority groups in modern society with particular emphasis on the Negro in the United States.

401: SOCIAL STRATIFICATION. [3]
Prerequisite: 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.

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.

211: PRE-COLUMBIAN CIVILIZATIONS OF THE AMERICAS. [3]
A survey of indigenous high civilizations in the Central Andes and Mesoamerica. Inca, Mayan, and Aztec imperial cultures are contrasted with one another and with the Hispanic colonial empire.
DEGREES, HONORS, AWARDS

Degrees Conferred
Dean's List
Awards
Degrees Conferred June, 1968

BACHELOR OF ARTS

Major in Biology

John T. Ambrose, with distinction
Jacqueline L. Baker
Joan Catherine Burkgren
Andrew C. Conlyn, Jr.
Tom C. Januszewski
Frances Bond Newhouse
Frederik R. Tellekamp

Major in Business and Public Administration

Charles Edward Brewer
Patrick T. Cassidy
Edward J. Cawley, Jr.
Janet Almeda McDonald Close, with distinction
Daniel Richard Eaton
Robert Henry Fillmore, Jr.
Rodney W. Forrest
William Thomas Golla
Paul D. Grefenstette, with distinction
George Hargrove, Jr.
Ruble Alison Hord III, with high distinction
Jean Taylor Howery, with distinction
Larry Russell Nicholson

Major in English

Joyce Marie Bentley
Jean Ann Bryson
Susan Mary Dinger
Joyce Carter Dunn, with distinction
William David Flanderemyer
Teresa Ann Hockersmith
Bonnie Gale Holmes
Barbara K. Holmstrup, with high distinction
Gwen Lorraine Honea
Jacquelyn Hartzell Linden, with high distinction
Sandra J. May
Loring Eugene Shiver
DEGREES, HONORS, AWARDS

Major in History

John Stephen Butler
Carol Lynn Charouhis
Susan O'Hara Christopher
Kathleen Dianne Cloney, \textit{with distinction}
Martha Janet Close
Gail Marie Gallagher
Grace F. Garrett
Donald Allen Green
Marquerite L. Huard
Michael Farley Johnson
Gordon F. MacPherson, Jr.
Theodore B. McCord, Jr.
Miles Bernard Minnies, Jr.
Elizabeth Brand Monroe
Dennis W. Moore
Maureen Ann Reilly
Theodore Charles Remington
John William Shreves
Leland Floyd Smith
James J. Tilton
Dean's List of Distinguished Students

FIRST SEMESTER 1967-68

Richard E. Ahlfield
Michael A. Alexander
Randolph Androsik
Sharon L. Baker
Charles C. Bailenger
Rosemary E. Beatty
Melanie G. Beck
Joan A. Bentley
Diane Billings
James H. Blondell
Judith A. Borecki
Carolyn M. Boyer
James B. Bradshaw, Jr.
Peter N. Braun
Barbara S. Breedlove
Charles P. Brinkman
Thomas K. Brown
Mondania M. Bullock
Mary P. Bumsted
Susan E. Burke
Robert A. Burtt, Jr.
Lynda D. Carson
Gail C. Chase
Susan O. Christopher
Nelson T. Clark
William J. Coleman, Jr.
William O. Collins, Jr.
Teresa L. Corbin
Marilyn T. Dargusch
Carol L. Davis
Gary D. Demas
Thomas A. Denton
Jerry J. Deola
Karen S. DeSonna
Susan M. Dinger
Dana F. Dunlap
Joyce C. Dunn
Cheryl L. Eckert
Michael B. Elliott
John C. Enos
Frederick K. Erickson, Jr.
James P. Feeney, Jr.
Emily M. Fischer

Peter C. Forame
Mark L. Foster
Thomas C. Foster
Terry L. Friesz
Paul L. Gaddis
Gail M. Gallagher
William T. Golla
Marylyn T. Graves
Joanne D. Grefenstette
Paul D. Grefenstette
Michael B. Grinder
Steven K. Grossman
Martin F. Gurri
Robert C. Hambleton
George F. Hargrove, Jr.
Paul W. Harmon
Richard J. Harris
Patrick D. Hart
Patricia J. Henderson
Walter D. Holtzclaw, Jr.
Ruble A. Hord, III
Dorothy J. Howery
Christine F. Hughes
Scott S. Ickert
Geraldine W. Inge
Gloria D. Jenkins
Michael F. Johnson
Lawrence E. Jones
Donald E. Kidwell
Glenn R. Kirby
Michael G. Koerner
Gail A. Krytusa
Ava E. La Mee
Gary D. Lee
Jacquelyn H. Linden
Thomas E. Lutes
Arlene L. Lyles
Gary C. Lyman
Gordon F. MacPherson, Jr.
Nancy R. Maloney
William R. Marcey
Richard W. Maybach
Theodore B. McCord, Jr.
DEGREES, HONORS, AWARDS

Nancy N. McGregor
Michael A. Meli
Mary K. Minnies
Elizabeth B. Monroe
Albert A. Muhlbauer, Jr.
Roselyne E. Muller
Michael E. Murphy
Michael A. Newton
Dee A. Orr
Linda A. Osborne
Robert A. Overman
Patricia A. Pakos
Bette L. Peery
Loren J. Peterson
Patricia A. Price
Helen M. Prichard
Carol S. Pyuen
Maureen A. Reilly
Daniel L. Rotherhoofer
Sandra J. Roupp
Ronald L. Schmied
Karen E. Schneitzler
Edith M. Seymour
Stephen B. Shapiro
Margaret E. Shea

Susan I. Shepard
Betty K. Shewbridge
James K. Smedegard
Leland F. Smith
Elizabeth J. Snyder
Richard J. Stakem, III
Janet E. Stremel
Susan J. Strong
Maria M. Saurez
Randolph M. Tauss
Rose M. Tessier
Roseanne M. Thaiss
Richard E. Trodden
Barbara J. Van der Vate
Mary L. Velebir
Carolyn Walters
Donald E. Watermeier
Beverly D. Weinbach
Ronald F. Wells
Kenneth J. Williamson, Jr.
Deborah A. Wilson
Ryan A. Windham
Glade S. Wittwer, Jr.
Margarete N. Wolaver
Curtis H. Wood
Pieter G. Wybro

SECOND SEMESTER 1967-68

Richard E. Ahlfield
Ellis J. Alexander
Michael A. Alexander
Robert J. Alexander
Linda M. Backstrom
Sharon L. Baker
Cyril A. Barch
Rosemary E. Beatty
Joan A. Bentley
Joyce M. Bentley
Brian E. Betters
Diane Billings
James H. Blondell
David F. Blount
Carolyn M. Boyer
James B. Bradshaw, Jr.

Thomas E. Brassel
Barbara S. Breedlove
Charles P. Brinkman
Susan E. Burke
Larry F. Burnette
Thomas E. Bush
Thomas D. Carey
Kenneth W. Carter
Gail C. Chase
Peter G. Checkovich
Nelson T. Clark
Kathleen D. Cloney
Susan E. Coleman
William J. Coleman, Jr.
Douglas C. Crouch
Kimberly A. Curtis
Harold V. Dansberger  
Marilyn T. Dargusch  
Stephen P. Dargusch  
Richard G. Davis  
Miguel P. Dengo  
Thomas A. Denton  
Jerry J. Deola  
Karen S. DeSomma  
Beverly J. Diggle  
Agnes W. Duncan  
Joyce C. Dunn  
Michael B. Elliott  
James P. Feeney  
Deborah J. Fitzgerald  
Mark L. Foster  
Thomas C. Foster  
Joseph R. Fox  
Jon S. Freda  
Edward A. Fredette  
Cathy L. Gallagher  
Paul R. Garces  
William T. Golla  
Marylyn T. Graves  
Bruce M. Green  
Joanne D. Grefenstette  
Paul D. Grefenstette  
Steven K. Grossman  
Jose A. Gurdian  
Robert C. Hambleton  
George F. Hargrove, Jr.  
Paul W. Harmon  
Lynda C. Harris  
Richard J. Harris  
Patrick D. Hart  
Marianne E. Hils  
Wellman W. Hoff  
Walter D. Holtzclaw, Jr.  
Joseph C. Howard, III  
Dorothy J. Howery  
Christine F. Hughes  
Scott S. Ickert  
Geraldine W. Inge  
Tom C. Januszewski  
Ann L. Jeffries  
Gloria D. Jenkins  
Bruce E. Johnson  
Michael F. Johnson  
Mary S. Jones  
Stephen L. Keidaish  
Mary M. Kelly  
Donald E. Kidwell  
Michael G. Koerner  
Barton H. Kramer  
Robert A. Kulenguski  
Judith E. Ladd  
Ava E. La Mee  
Gary D. Lee  
Jacquelyn H. Linden  
Thomas E. Lutes  
Arlene L. Lyles  
Gary C. Lyman  
Shirley A. Lynskey  
Gordon F. MacPherson, Jr.  
Marguerite L. Mangum  
William R. Marcey  
Richard W. Maybach, Jr.  
Andrew P. Mayo  
Nancy N. McGregor  
Michael A. Meli  
Mary K. Minnies  
Elizabeth B. Monroe  
Bruce A. Morey  
Albert A. Muhlbaier, Jr.  
Roselyne E. Muller  
Edward W. Murray  
David W. Natella  
Michael A. Newton  
Thomas M. Newton  
Katherine A. Ongalo  
Dee A. Orr  
Christine E. Ottersberg  
Robert A. Overman  
Virginia J. Parrish  
Barbara K. Poytress  
Ann H. Prestera  
Patricia A. Price  
Helen M. Prichard  
Nancy M. Proise  
Carol S. Pyuen  
Jacqueline Reeves  
Anthony B. Riolo  
John C. Rogers  
Sandra J. Roupp  
Richard K. Rytter
DEGREES, HONORS, AWARDS

Richard K. Rytter
Benjamin T. Saunders
Ronald L. Schmied
Karen E. Schnetzler
Catherine V. Semenuk
Edith M. Seymour
Betty K. Shewbridge
Elizabeth J. Snyder
Susan E. Snyder
Susan P. Sprague
Richard J. Stakem, III
Susan J. Strong
Maria M. Suarez
Frederik R. Tellekamp
Rose M. Tessier
Rosanne M. Thaiss
Richard E. Trodden
Barbara J. Van der Vate
Mary L. Velebir
Sylvia D. von Schwanenfluegel
Carolyn Walters
Pearl M. Warren
Donald E. Watermeier
Beverly D. Weinbach
Ronald F. Wells
James C. Williams
Kenneth J. Williamson, Jr.
Deborah A. Wilson
Glade S. Wittwer, Jr.
Curtis H. Wood
Pieter G. Wybro
Theresa F. Yoneyama
Gregory C. Zirzow
Awards

GEORGE MASON COLLEGE
LITERARY CONTESTS

Short Story:

First Prize: Mrs. Jacquelyn H. Linden
Second Prize: Mr. Steven Hitchcock
Third Prize: Mrs. Ruth E. Kinsey
Honorable Mention: Mr. Andrew P. Mayo

Poetry:

First Prize: Mr. Michael Tabor
Second Prize: Mr. Paul Garneau
Third Prize: Mr. Christopher Lutyk

GEORGE MASON ESSAY CONTEST

Sponsors: Board of Regents, National Society of The Colonial Dames of America
Michael F. Johnson

ATHLETIC AWARDS 1967-1968

Most Valuable Athlete: Michael F. Johnson
Most Valuable Baseball Player: David W. Sullivan
Most Valuable Basketball Player: Hal E. Woodside
COLLEGE DIRECTORIES

Administration
Faculty
Library
Information and Planning
Staff
Student Assistants
Faculty Committees
Student Government
Alumni Association
George Mason College Foundation, Inc.
George Mason College Advisory Committee
University of Virginia, The Rector and Visitors
University of Virginia, Administration
Administration

Lorin Andrew Thompson, B.A., M.A., Ph.D.
Chancellor

Robert Charles Krug, B.S., M.S., Ph.D.
Dean of the College

Stephen Jeffry Brown, B.A., M.A., Ph.D.
Associate Dean of the College

Henry Patterson Adams, B.S.
Business Manager

Robert Amrine Turner, B.S., M.A.T.
Dean of Students

Louis John Aebischer, B.S., M.S.
Director of Admissions

Mark Alan Tannenbaum, B.A., M.A.
Registrar and Director of Financial Aid

Faculty

Abbud, May Catherine, Acting Assistant Professor of Mathematics. B.Sc., American University, Beirut, Lebanon, 1960; M.Sc., American University, Beirut, Lebanon, 1962; M.A., University of Rochester, 1967.

Aebischer, Louis John, Assistant Professor of Education, Director of Admissions. B.S., Syracuse University, 1936; M.S., Syracuse University, 1947.

Andrykovitch, George Eugene, Assistant Professor of Biology. B.S., University of Pittsburgh, 1962; M.S., University of Maryland, 1965; Ph.D., University of Maryland, 1968.

Ariola, Paul Manuel, Associate Professor of Spanish. B.A., San Diego State College, 1947; M.A., University of California, 1949; Ph.D., University of California, 1956.

Austin, Virginia LaRose, Assistant Professor of Education. B.S.M., DePauw University, 1931; M.Ed., University of Maryland, 1954.


BROOKS, Nancy Cook, Assistant Professor of Spanish. A.B., University of Kansas, 1947; M.A., University of Kansas, 1948.

BROWN, Stephen Jeffry, Professor of English, Associate Dean of the College. B.A., Yale University, 1950; B.A., Cambridge University, 1952; M.A., Yale University, 1954; Ph.D., Yale University, 1959.

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, Acting Professor of Mathematics. B.A., University of Tennessee, 1955; M.A., University of Virginia, 1957; Ph.D., University of Virginia, 1960.

CARTER, Courtney Morton, Instructor in English, B.A., College of William and Mary, 1965; M.A., University of Virginia, 1966.

CLARK, James Edgar, Lecturer in Engineering Drawing. B.C.E., Catholic University, 1960; M.S., University of Arizona, 1964.

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. Dolemscher, University of Mainz, 1955; M.A., University of Florida, 1957; Ph.D., George Washington University, 1968.

COZZENS, Robert Francis, Assistant Professor of Chemistry. B.S., University of Virginia, 1963; Ph.D., University of Virginia, 1966.

DAY, Donald Keith, Instructor in Physics. B.S., Massachusetts Institute of Technology, 1963; M.S., University of Maryland, 1967.

DOMINICK, William Boyce, Assistant Professor of Business Administration. A.B., Furman University, 1921; A.M., University of Chicago, 1925.

DOWE, Jr., Ray Michael, Lecturer in Physics. B.S., United States Military Academy, 1950; M.S., University of Alabama, 1961; Ph.D., University of Alabama, 1965.

DUFFNER, Margaret Cain, Lecturer in Speech. A.B., MacMurray College, 1940; M.A., Northwestern University, 1943.


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.


ELSTUN, Esther Nies, Assistant Professor of German. B.A., The Colorado College, 1960; M.A., Rice University, 1964; Ph.D., Rice University, 1968.

EVANS, Arlette Raymonde, Assistant Professor of French. B.A., University of Algiers, 1941; M.S., Georgetown University, 1965.

FEDEL, Robert Frederick, Lecturer in Engineering Drawing. B.S., University of Massachusetts, 1951; M.S., Massachusetts Institute of Technology, 1962.

FEINSTEIN, Hyman Israel, Associate Professor of Chemistry. A.B., University of Michigan, 1930; M.A., Columbia University, 1932.

FLINT, Ruth Allaire, Acting Assistant Professor of Biology. B.S., University of Massachusetts, 1954; M.S., University of Massachusetts, 1955.

GALLEHR, Donald Raymond, Instructor in English. B.A., St. Bonaventure University, 1964; M.A., Fordham University, 1966.

GARSON, Helen Sylvia, Assistant Professor of English. A.B., George Washington University, 1946; M.A., University of Georgia, 1947; Ph.D., University of Maryland, 1967.


GINSBERG, Victor, Lecturer in Chemistry. B.A., University of California, 1952; Ph.D., University of California, 1955.
GLEISSNER, Richard Anthony, Acting Assistant Professor of History. B.S., University of Wisconsin, 1958; M.A., Marquette University, 1959; Ph.D., University of Maryland, 1968.


GOLINKIN, Blossom Doris, Assistant Professor of Spanish. A.B., Queens College, 1943; A.M., Columbia University, 1946.


HAWKINS, Annette Robins, Instructor in Chemistry. A.B., Smith College, 1940.


HOBSON, Irmgard Wagner, Lecturer in German. Staats-examen, Tübingen University, Germany, 1961; M.A., Tufts University, 1965.


JACKSON, James Louis, Professor of English, Chairman of Department of Languages. A.B., University of Illinois, 1938; M.A., University of Illinois, 1940; Ph.D., University of Illinois, 1949.

JOHNSTON, William Cargill, Professor of Physics, Chairman of Department of Physics. B.A., Davidson College, 1939; M.S., University of Virginia, 1941; Ph.D., University of Virginia, 1943.


KARLSON, Robert Emil, Associate Professor of English. B.A., College of William and Mary, 1948; M.A., Breadloaf School of English, 1957.

KHOURY, Angela Jurdak, Assistant Professor of Government. B.A., American University of Beirut, 1937; M.A., American University of Beirut, 1938; Ph.D., The American University, 1968.

KRUG, Robert Charles, Professor of Chemistry, Dean of the College. B.S., University of Richmond, 1940; M.S., Pennsylvania State University, 1941; Ph.D., Ohio State University, 1944.


MACCONKEY, Dorothy Ingling, Instructor in Sociology. A.B., Beaver College, 1947; M.A., Wichita State University, 1953.

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