## 1999-2000

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## Undergraduate Programs

University of Maryland University College
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## University Policy Statements

The provisions of this publication are not to be regarded as an irrevocable contract between the student and University of M aryland University College. There are occa sional changes in the general regulations and in the academic requirements. Procedures that have been established for making changes were designed to protect the institution's integrity and each student's interests and welfare. W hen a curriculum requirement or a graduation requirement is altered, it is made retroactive only if it is to the student's advantage and can be accommodated within the span of years normally required for graduation.

## Accreditation

University of M aryland University College is accredited by the C ommission on Higher Education of the M iddle States Association of Colleges and Schools, 3624 M arket Street, Philadelphia, PA 19104 (215-662-5606).

## Nondiscrimination

University of M aryland University C ollege welcomes applications from prospective students and employees regardless of race, religion, color, creed, gender, marital sta tus, age, national origin, political affiliation, mental or physical disability, or sexual orientation.
University of $M$ aryland University College is a member of the U niversity System of $M$ aryland.

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# Introduction to University of Maryland University College 

## OVERVIEW

University of $M$ aryland University College (UM UC) is an innovative, global university whose mission is to provide high-quality educational opportunities to adult, part-time students worldwide. W ith headquarters in College Park, M aryland, UM UC is one of 11 degreegranting institutions within the University System of M aryland (U SM ). Since 1947, adults in the workforce have known UM UC for its commitment to excellence both in credit and noncredit programs. UM U C offers associate, undergraduate, and graduate degree programs, and professional development opportunities, including industry certification. Students may attend courses locally, nationally, at international locations, or at a distance through the use of technology.

UMUC is a forerunner in the world of distance education, having provided open and alternative educational opportunities to adult learners for more than 25 years. Recently, UM UC has emerged as a leader in technologymediated distance education, winning two coveted UCEA/Peterson's awards for innovative distance education, and receiving recognition from Forbes magazine as one of the top 20 "cyber universities" in the world. UM UC uses multiple technologies to design and deliver distance programs and student support services, with online delivery emerging as the fastest growing component of its distance program. By June 1999, U M UC had served more than 12,000 students through distance education technologies, including more than 7,000 students in over 150 online courses. That number continues to grow every semester.

UM UC operates 28 regional sites in or near M aryland. Programs are also offered at more than 150 U.S. military installations in Europe, the M iddle East, East Asia, and the Pacific for servicemembers and their families. A two-year residential campus in $M$ annheim, Germany, serves the families of U.S. military and government personnel stationed in Europe. At its residential campus in Schwäbisch Gmünd, Germany, UM UC provides an international undergraduate education to students from the United States and dozens of other countries. Russian students may earn a U M UC bachelor's degree through online programs offered jointly with Far Eastern State University in Vladivostok and Irkutsk State University in Irkutsk.

Students choose U M UC because of its excellent academic programs. Undergraduate degree students may choose a primary specialization from 31 academic subjects, 16 of which are available completely at a distance. (A complete listing of undergraduate specializations appears on p. 15). Students may also take advantage of UM UC's innovative approaches to learning, such as interdisciplinary programs, cooperative education, and portfolio assessment of experiential learning. The Graduate School of $M$ anagement \& Technology confers eight master's degrees, including an online M aster of Business Administration, with 19 tracks in management and technology. The Graduate School also offers an executive master's degree program including an Executive $M$ aster of Science in $M$ anagement, an Executive $M$ aster of International $M$ anagement, an Executive $M$ aster of Science in Technology M anagement, and an Executive Program in

## The System now consists of 11 degreegranting institutions:

Bowie State U niversity
Coppin State College
Frostburg State U niversity
Sali isbury State U niversity
Towson University
University of Baltimore
University of $M$ aryland, Baltimore
University of $M$ aryland, Baltimore County

University of M aryland, College Park
University of M aryland Eastern Shore
University of M aryland
University College

## In addition to theæe 11 institutions, there are two U niversity System of Maryland reearch and service units.

University of $M$ aryland Biotechnology Institute

University of M aryland C enter for Environmental Science

Information Technology leading to a M aster of Science in Computer Systems $M$ anagement or a M aster of Science in Telecommunications $M$ anagement. The curricula of U M UC's bachelor's and master's degree programs emphasize skills and competencies needed by adults in the workforce. The university works closely with its faculty, businesses, and other organizations in developing and maintaining the currency of these curricula.

U M U C's increasing alliances strengthen its mission. UM UC has formed alliances with seven $M$ aryland community colleges to enable students to earn an associate's degree at an allied community college and then finish a bachelor's degree by completing upper-level coursework at UM UC . Participating colleges include Anne Arundel Community College, C arroll Community College, Charles County C ommunity College, Frederick Community College, H agerstown Community C ollege, M ontgomery College, and Prince George's Community College. These alliances offer students dual admission, simultaneous enrollment, seamless curricula, and convenient locations to complete associate's and bachelor's degrees throughout M aryland and the Washington, D.C., metropolitan region. (M ore details are provided on p. 6.)

In addition, UM UC is a charter member of M arylandO nline, to be launched in fall 1999. M arylandO nline is a collaboration between M aryland community colleges and universities, with a goal of providing online degrees (associate's, bachelor's, and master's) and certificates to citizens of M aryland and to students throughout the United States.

Partnerships in M aryland support the business community. UM UC works to develop strong strategic partnerships with business and industry leaders, government, and other agencies in M aryland, and is an important partner in our state's economic development. Adhering to its mission of bringing convenient and relevant learning opportunities to the workforce, U M U C has developed strong relationships with many prominent M aryland businesses to assure that their education and training needs, and those of their individual employees, will be met.

UM UC also houses preeminent international centers for research and professional development training. In accordance with the mission of bringing convenient and relevant learning opportunities to the workforce, several professional institutes and research centers within UM UC customize training and education for a wide array of organizational clients.

U M UC constantly devises and develops new high-quality academic programs and delivery methods, such as online delivery, to meet the demands of expansion. Support services are continually evaluated and monitored to ensure that the needs of UM UC students are met.

UM UC is positioned for even greater accomplishments in the second millennium. Already enrolling the largest number of students of any USM institution, UM U C's 1998 academic year enrollment of more than 70,000 students will continue to expand in the coming years.

## D istance Learning Formats

UM UC affords students the opportunity to earn a bachelor's degree in 16 curricula through courses offered at a distance. These courses are designed for students who require scheduling flexibility or are unable to commute to classroom sites. Courses are available online via the World Wide Web or through voice mail. C ourses often require video- or audiotapes.

UM UC offers primary specializations in accounting, behavioral and social sciences, business and management, communication studies, computer and information science, computer studies, English, environmental mangement, fire science, humanities, information systems management, management, management studies, paralegal studies, psychology, and technology and management through distance education formats. Students may complete degrees exclusively online in the following specializations: accounting, behavioral and social sciences, business and management, computer and information science, computer studies, management, management studies, and technology and management. For most specializations, students may choose to pursue their degrees through a combination of interactive formats. Distance courses can also be used to earn a paral egal studies document, complete a second bachelor's degree, or supplement classroom-based degree programs.

O nline students must meet certain minimum computing conditions. For more information on hardware or software requirements, or for other details, students may visit the UM UC distance education Web site at www.umuc.edu/distance or call 301-985-7000 or 800-283-6832.

## M arylandO nline

M arylandO nline unites M aryland colleges and universities in delivery of their programs and services statewide and internationally via the World W ide Web. Begun in 1998 as a cooperative venture between U M UC and the M aryland Community College Teleconsortium (MCCT), M arylandO nline currently comprises UM UC and 16 community colleges and is expected to expand soon to include other University System of $M$ aryland institutions and state independent colleges and universities.

Building on the degree articulation alliances U M UC has forged with the state's community colleges and the successful online educational consortium the community colleges have formed as part of MCCT, M arylandO nline allows students to earn associate's, bachelor's, and master's degrees, as well as certificates, free from campus boundaries. Partners in M aryland O nline collaborate in the development, marketing, delivery, and training needed for instruction to succeed in an online environment.

## National Universities D egree Consortium

UM UC participates in the $N$ ational Universities D egree C onsortium ( $N$ UDC). NUDC is a consortium of 12 accredited universities across the U nited States working together to offer more than 1,000 courses through distance education. Courses are available directly from the individual members of N U D C. To receive a catalog, prospective students may call 800-283-6832, ext. 7000, or visit the Web site at www.sc.edu/deis/N U DC/.

## Southern Regional Education Board

UM UC also provides its graduate and undergraduate distance education programs and courses through the Electronic Campus of the Southern Regional Education Board (SREB). SREB is the nation's first interstate compact for education, created in 1948 to advance education and improve the social and economic life of the region by providing high-quality academic opportunities. Sixteen southern states, including M aryland, currently participate in the Southern Regional Electronic C ampus. The Electronic C ampus W eb site can be found at www.srec.sreb.org.

## Prior Learning

Prior Learning offers students two opportunities for earning credit for pre vious study or for prior experiences beyond the classroom. O ne approach, the course-challenge examination, permits students to take comprehensive tests on material learned outside the classroom that is generally presented in college courses. A test is prepared individually for the student who requests it. The other approach, EXCEL Through Experiential Learning, allows students to earn credit for college-level knowledge acquired in work and life experiences. After being admitted to the EXCEL program, students enroll in a course that requires them to prepare a portfolio of relevant learning. The portfolio is then evaluated by faculty specialists for possible credit. This course is available online via the Web or in voice-mail format. The credit may be applied toward a first or second degree. To be eligible, students must complete an EXCEL application and attend an EXCEL orientation. Students may call 301-985-7755 or 800-283-6832, ext. 7755, or may visit the Web page at www.umuc.edu/pri orlearning for more information.

## C ooperative Education

Cooperative Education (Co-op) is an opportunity to combine academic the ory with new, career-related experiences. Students can earn upper-level academic credit integral to the bachelor's degree for new learning that occurs in the workplace. Co-op enables a student to develop marketable skills while completing degree requirements. It is possible for students to earn Co-op credit if their current position offers an opportunity for new learning or if they recently started a new job, received a promotion, or were assigned new responsibilities. Co-op credit may be earned in any UM UC specialization, in paid or unpaid positions.

The Co-op staff teaches job-search skills through the Job D evelopment program to help students find positions in their career fields. There is a fee for this service. Students participating in Job D evelopment enroll in the Co-op course when they begin a new position. Students may call 301-985-7780, send e-mail to coop@www.umuc.edu, or visit the Web page at www.umuc.edu/ coop for further information.

## Nuclear Science and Engineering Program

The Nuclear Science and Engineering Program (N SEP), delivered on site at participating corporations, is available through contracting arrangements. It is the second largest nuclear science bachelor's degree program in the country. Its objective is to produce graduates who can effectively manage the technologically unique environment of the nuclear industry. The program was designed to meet the recommended guidelines of the U.S. Nuclear Regulatory Commission.

N SEP is a computer-aided program that includes online instruction, faculty lectures, student services, and labs. Students have continual communication with faculty, academic counselors, and administrative staff through the use of telecommunication.

## Community College Alliances

UM UC has partnerships with several area community colleges to allow adult, part-time students to move seamlessly into a bachelor's degree program within their communities, through integrated curricula. Students may be concurrently admitted to their local community college and UM UC through a single application, and may take advantage of any of UM UC's locations for their upper-level coursework. Students may also complete upper-level coursework through UM U C's distance learning options, including online course delivery. C ounselors both at UM UC and the community college provide academic advising, financial aid coordination, and library services information.

## M ore academic alliances are currently in the planning stages.

## AACC-UMUC Alliance

In Anne Arundel County, UM UC offers classes at Anne Arundel Community C ollege, the U M UC Annapolis Center, Fort M eade, and the Glen Burnie Town Center. Students participating in the AACC-U M UC Alliance may complete bachelor's degree specializations in accounting, business and management, management, management studies, computer science, computer and information science, computer studies, and information systems management.

## CCC-UMUC Alliance

The Carroll Community College-University of M aryland University College Alliance offers students in C arroll C ounty the ability to use their associate's degree programs as the foundation to complete their bachelor's degrees. CCC programs in computer information systems, computer graphics, or computer-aided design are all linked with UM U C's bachelor's degree specialization in computer studies. Additionally, articulated programs leading to the psychology and communication studies specializations are available. C arroll C ounty students may attend a limited number of UM UC courses at the community college, but will find it convenient to complete their programs via distance programs.

## CCCC-UMUC Alliance

In Southern M aryland, C harles C ounty Community College and University of M aryland University College have formed the CCCC-UM UC Alliance. The newly opened CCCC-UM UC Waldorf Center offers students a state oftheart education facility. Instructional technology (including computer labs), instructional television, interactive video, and distance learning capabilities support the academic programs of both institutions. C oordinated student and academic services are available at the Waldorf Center. Students also may be admitted to the alliance at any of CCCC's and UM UC's other locations. The articulated programs include bachelor's degree specializations in accounting, business and management, management, management studies, computer and information science, computer science, computer studies, and information systems management.


## FCC-UMUC Alliance

The Frederick Community College-University of M aryland University College Alliance allows students in Frederick County to complete both associate's and bachelor's degrees in the county. In Frederick County, UM UC offers courses at Frederick Community College and the Frostburg State University Center at Frederick. FCC associate's degrees in several disciplines are linked to the related UM UC bachelor's degree specializations of computer and information science, computer studies, information systems management, and psychology. Additional programs may be articulated at a later date.

## HCC-UMUC Alliance

Washington County students will find the H agerstown Community C ollege-University of $M$ aryland University College Alliance an ideal relationship as they pursue advanced education. Several articulated academic programs, the dual-admissions process, and coordinated student support make the transition from associate's degree to bachelor's degree smooth and convenient. HCC programs in accounting, management, paralegal studies, and computer-related studies will lead to the respective bachelor's degree specializations at UM UC. Students may attend classes at the Frostburg State University Center at Hagerstown, participate in instructional television classes at the community college, or complete their UM UC requirements online.

## MC-UMUC Alliance

The M ontgomery College-University of $M$ aryland University College Alliance offers students articulated bachelor's degree programs in accounting, business and management, management studies, hotel and restaurant management, computer science, computer and information science, computer studies, and information systems management. Students at the M ontgomery College campuses in Rockville and Germantown may find it most convenient to take U M U C classes at the U niversity System of M aryland Shady Grove Center, while students at the M ontgomery College Takoma Park campus may take advantage of the U M UC offerings at nearby College Park.

## PGCC-UMUC Alliance

Students in Prince George's County who participate in the Prince George's C ommunity College-University of $M$ aryland University College Alliance may complete their bachelor's degree in Prince George's C ounty at the UM UC sites of College Park, Andrews Air Force Base, and Prince George's C ommunity College. The curricula include articulated bachelor's degree programs in accounting, business and management, management, management studies, technology and management, communication studies, computer and information science, computer studies, criminology/criminal justice, English, health services management, information systems management, paralegal studies, psychology, and sociology. Since the alliance is designed to serve part-time students, most classes are offered in the

## Admission and Enrollment

## ADMISSION REQUIREMENTS

The admission policies of UM UC were designed to meet the needs of adult, part-time students. M ost applicants who have a high school diploma or the equivalent can be admitted and register for an undergraduate course either by mail or in one visit during walk-in admission and registration. In most cases, neither transcripts nor test scores are required. By the end of the first semester, a student who plans to earn a degree at UM UC must make sure that official transcripts have been sent from each institution previously attended.

## Student Status

U pon being admitted to UM UC, students are assigned one of three status categories: regular, provisional, or semesteronly. Admission of foreign-educated applicants is governed by requirements given on p .9 .

## Regular

A qualified applicant who wants to receive credit for courses (whether intending to receive a degree or not) is admitted as a regular student. Admission as a regular student will be granted to U.S.-educated applicants who fulfill the following academic requirements that apply to their educational level:

- Graduation from a regionally accredited or state-approved high school
or
A total score of at least 225 on the General Education D evelopment (GED ) examination and no score below 40 on any of the five tests.
- A cumulative gradepoint average of at least 2.0 (on a 4.0 scale) in all college-level work attempted at other regionally accredited colleges and universities, including other University System of M aryland institutions.

An academic probation or dismissal that occurred at least two years before the date when the student applies for admission has no bearing on the student's admission status.

Students are not required to submit official transcripts for admission. H owever, students must have all official documents of their educational background on file with UM U C at the time of their request for an official evaluation. Students who present at least 24 semester hours of transferable college credit will not be required to submit official high school transcripts or GED scores.

## Provisional

Two types of students are in this category: transfer students who had a cumulative grade-point average at their last institutions of less than 2.0 (on a 4.0 scale) within the previous two years, and those who have been academically dismissed within the past two years from any institution regardless of their cumulative grade point average. These students may apply for admission if at least one semester (spring or fall) or the summer trimester has passed since they last attended any institution.

Provisional students may enroll for a maximum of 7 semester hours during a fall or spring semester or summer trimester. To remain eligible to register, provisional students must, during their first semester of enrollment at UM UC, submit transcripts from all colleges and universities they have attended. O therwise, they will not be permitted to reregister.

If a provisional student's grade-point average is less than 2.0, the student will be placed on probation. If, while on probation, the student's semester grade-point average is 2.0 or better, she or he will return to provisional status. If, while on probation, the student's semester grade-point average is less than 2.0, he or she will be dismissed and must follow the standard reinstatement procedures that apply to all dismissed students. A provisional student's status automatically will be changed to regular after the student has successfully completed 15 semester hours with a cumulative grade point average of 2.0 or higher.

## Semester-O nly

International students in either of the following categories will be admitted for one semester only: foreign-educated students who have not completed at least 24 semester hours of transferable college coursework, and F-1 visa holders or students seeking F-1 visas.

To register for a subsequent semester, these students must meet the following criteria:

- Foreign-educated students who have not completed at least 24 semester hours of transferable college coursework must submit official transcripts verifying completion of the equivalent of U.S. secondary education. While admitted for one semester only, these students must follow the same restrictions as provisional students.
- F-1 visa holders must submit a letter of permission from their sponsoring institutions before registration each semester. F-1 visa holders or students seeking F-1 visas are not eligible for transfer, because Undergraduate Programs does not issuel-20s for student visas except in extraordinary circumstances.

Admission requirements for international students are given on p. 9.

## PROCEDURES FOR ADMISSION

To apply for admission, students must complete an undergraduate admission application and pay the nonrefundable $\$ 30$ fee. Before attempting to register, all students must have been officially admitted. Applications for admission may be processed by mail or in person, at any time before registration or at registration. Students can also fax admission forms to 301-9857978. The admission form is also available via the Web at www.umuc.edu/sudserv/isisugradappn.html; the application should be printed and either mailed or faxed to UM UC.

Applications submitted by mail will be acknowledged promptly in writing. To allow time for processing, applicants who wish to take advantage of touch-tone registration must ensure that their applications reach the Information and Enrollment Team at least one week before touch-tone registration begins.

## D etermination of Residency for Tuition Purposes

An initial determination of in-state or out-of-state status for tuition purposes will be made when a student applies for admission. The determination made at that time will remain in effect thereafter unless it is successfully challenged. The student is responsible for providing the information necessary to establish eligibility for in-state status. O fficial criteria for determining residency are in the appendices.

## Readmission

Before they will be allowed to register, students who have not attended UM UC for two years and students who are transferring from the overseas divisions must file a new application with the Information and Enrollment Team. H owever, they need not pay another application fee.

## Admission for College Graduates

A student who has received a bachelor's degree from a U.S. institution is immediately admissible to UM UC as a regular (undergraduate) student. Courses taken while in regular (undergraduate) status, however, cannot ordinarily be applied to a graduate degree program.

A former graduate student in the University System of $M$ aryland whose time limit in a program has expired may also be admitted as a regular (undergraduate) student. Students who have been admitted as graduate students to any institution of the U niversity System of M aryland other than UM UC may take undergraduate courses. To do so, they must register as graduate students and pay graduate tuition and related fees. Students who have been admitted as graduate students to UM UC may take undergraduate courses at the undergraduate rate of tuition. Undergraduate courses taken by graduate students may not be applied toward graduate degree requirements.

## International Students

Non-native speakers of English cannot be admitted unless they submit proof of English proficiency. Students planning to participate in distance courses while living outside the United States are not required to submit documentation regarding national residency. For those international students wishing to subsequently study at UM UC in the United States (this includes permanent residents, nonresident aliens, asylees, or those who do not hold U.S. citizenship), the following documents are required: a photocopy (front and back) of a permanent residency card or a work authorization card, or the first page and visa page of a valid passport and Form I-94. These documents must be on file at Student Services within 15 days of the student's arrival in the United States for the student to continue in UM UC programs. All other requirements apply.

Applicants who were educated outside the United States or who are not U.S. citizens must submit the following documentation to be admitted as regular students.

- If planning to attend while living in the United States, proof of current or most recent immigration status.

Applicants must show their resident alien card, or passport and Form I-94, to the Information and Enrollment Team, or submit legible photocopies of these documents with their applications for admission.

Applicants holding F-1 or J-1 visas must submit written authorization from their sponsoring institutions before they will be allowed to enroll at UM UC on a semesteronly basis. Undergraduate Programs does not issue I-20s for student visas except in extraordinary circumstances.

- Proof of English proficiency.

Applicants whose native language is not English must submit one of the following proofs of English proficiency:

A score of at least 550 on a written version or 213 on a computerized version of the Test of English as a Foreign Language (TOEFL),
or
A grade of C or higher in an English composition course from an accredited U.S. college or university, or
Completion of an A.A., B.A./B.S., or higher degree from an accredited U.S. college or university.

- Official transcripts verifying successful completion of the equivalent of a U.S. secondary education.

Students who have successfully completed at least 24 semester hours of transferable, nonvocational, nontechnical credit with a cumulative grade-point average of
at least 2.0 (on a 4.0 scale) should submit the official transcripts from these regionally accredited U.S. colleges or universities to verify completion of credits. Applicants who have completed college courses outside the United States can acquire international credit evaluation forms on the World Wide Web at www.umuc.edu/sudserv/ credeval.html or by calling 301-985-7000.

Students who present fewer than 24 semester hours of transferable college coursework may be required to prove U.S. high school equivalency before they can be admitted by

Using one of the international credit-evaluation agencies approved by UM UC for an evaluation of U.S. high school equivalency before admission and requesting that official transcripts be sent directly from the issuing institution to UM UC during their first semester of enrollment, or
Submitting official transcripts verifying completion of the U.S. General Education D evelopment (GED) test with a total score of at least 225 and no subtest score below 40.

To make an appointment to present a passport and a Form I-94, resident alien card, or high school transcripts, applicants should contact the Information and Enrollment Team at 301-985-7265. Information about regular, provisional, and semester-only admission status categories is given on p. 9.

## Applicants Previously Suspended or Dismissed

An academic probation or dismissal from any institution that took place at least two years before the date when a student applies for admission has no bearing on the student's admission status. H owever, all previously dismissed UM U C students must apply for reinstatement.

Applicants academically suspended or dismissed from other institutions within the previous two years, regardless of their cumulative grade-point average, may be admitted as provisional students. These students may apply for admission if at least one semester (spring or fall) or the summer trimester has passed since they last attended any institution. They must fulfill the requirements for provisional status. D etails are given on p. 8 .

An applicant who has received a disciplinary suspension or dismissal from another institution within the last three years may not be considered for admission to UM UC until officials have thoroughly reviewed the case. Such an applicant must make certain that the institution where the action was taken sends all records explaining the circumstances directly to the Information and Enrollment Team. The length of time necessary for the documents to be sent and reviewed may preclude the student's registering during the term of initial application.

## C oncurrent Secondary Enrollment

With the recommendation of a high school guidance counselor, an academically gifted high school senior may carry a maximum of 7 credits per semester at UM UC while finishing work toward a high school diploma. At least a month before a term begins, UM UC must receive the student's application for admission, the application fee, official high school transcripts, and written permission from the appropriate officials at the high school. Such a student is required to demonstrate a cumulative grade-point average of at least $3.5(\mathrm{~B}+)$ in high school academic subjects. After being accepted, the student may continue to register as a "concurrent secondary" student until graduation from high school. For purposes of categorization, the student is treated as having provisional status.

## Golden Identification $\mathbf{C}$ ard for Senior Citizens

Senior citizens may qualify for admission and a Golden Identification Card. Participants in the Golden Identification C ard program may register for up to 7 semester hours each semester for credit, on a space-available basis, without paying tuition. They may enroll at late registration only. Although the lateregistration fee is waived for senior citizens, they must pay all other fees. Courses sponsored by Professional and W orkforce D evelopment, as well as credits and fees associated with EXCEL Through Experiential Learning, are excluded.

To qualify for the G olden Identification Card, the prospective student must meet the following criteria:

- Be a resident of $M$ aryland,
- BeaU.S. citizen or produce a resident alien card (formerly an alien registration card),
- Be 60 years of age by the beginning of the term being applied for,
and
- Not be employed more than 20 hours a week.

The applicant must specify date of birth and place of residence on the application form. Those data, plus retirement status, are required on the certification form to prove eligibility for a G olden Identification C ard. Both forms are to be filled out at the time of application.

Students who previously obtained a Golden Identification Card at another institution in the University System of $M$ aryland should present that card before registration, and must complete two forms and have them approved:

- A new certification of eligibility for a Golden Identification C ard,
and
- A notification of registration with UM UC.


## Permission to Attend Another Institution

Students who wish to enroll at another institution while continuing to seek a degree from U M UC must first obtain permission from their UM UC resource team counselor. Spe cific criteria must be met. A counselor's review of the request for permission helps ensure that credits from another institution apply toward the UM UC degree requirements. D egree seeking students who do not check with a U M UC counselor before enrolling elsewhere may be denied the transfer credit.

To establish eligibility for a letter of permission, students must fulfill the following requirements- not only for regular semesters but also for the summer trimester:

- Be a regular student seeking a degree from UM UC;
- H ave successfully completed at least 15 semester hours of coursework with UM UC;
- H ave a minimum cumulative grade-point average of 2.0 or better for all UM UC coursework (however, University of $M$ aryland, C ollege Park, will not accept students with a grade point average less than 2.4);
- H ave received a tentative evaluation completed by a UM UC counselor;
- H ave requested an official evaluation from UM UC;
- Demonstrate a genuine need to enroll at another institution instead of UM UC;
and
- Be eligible for admission (or readmission) to the institution.

Students who have completed a total of 60 semester hours of credit (from all sources) are not usually eligible for permission to attend community colleges or other two-year schools.

## Procedures

Each eligible student must have on file a U M U C tentative evaluation of previous credit, which is obtained through the student's resource team. (Further details are on p. 170.)

Students should request permission to attend another institution at least four weeks before the start of the semester. This time is required to review the student's request and have faculty evaluate the content of the course that is intended for transfer credit.

The following are deadlines for submitting the request form to attend the U niversity of M aryland, C ollege Park:

For fall $1999 \quad$ August 6, 1999
For spring 2000
For summer 2000
D ecember 13, 1999
May 3, 2000

## Restrictions on Attending 0 ther Institutions

- The letter of permission is valid only for undergraduate courses and only for one semester. Letters cannot be obtained for more than two consecutive semesters.
- Transfer of credits is not automatic; it is the student's responsibility to ask the registrar's office at another institution to send an official transcript to UM UC's Student Services office.
- Credits awarded by another institution are evaluated by UM UC as transfer credits. Transfer credits from other institutions in the University System of $M$ aryland do not satisfy any part of the residency requirement of 30 semester hours at UM UC.
- Although transfer credits may be accepted, the grades conferred for coursework at other institutions are not used in calculating the student's grade-point average at UM UC.

Students who meet the requirements for eligibility (outlined on this page) may obtain a Request for Letter of Permission from their resource team. The request requires a counselor's approval and may take four weeks to process.

## Forwarding of $\mathbf{O}$ verseas Students' Records

Records of students formerly enrolled in the European Division, in the Asian Division, at the Schwäbisch G münd campus, or at the M unich/Augsburg campus (now located in M annheim) of UM UC are retained in the O ffice of Admissions and Registrations of that division or campus.

If such a student later enrolls in UM UC stateside, the student's records will then be requested by Student Services.

## Bachelor's D egree Requirements

At the undergraduate level, UM UC offers the Bachelor of Arts and Bachelor of Science degrees. In paralegal studies, a document also is offered. The Associate of Arts and certificates are available only to active-duty military personnel.

Requirements for degrees vary according to the degree and the areas of specialization. The requirements that all candidates for the bachelor's degree must meet are summarized in the following sections.

## CROSS-CURRICULAR INITIATIVES

Through its initiatives of computer literacy, effective writing, information literacy, and international perspectives, U M U C aims to produce graduates who are well prepared to function as professionals in the complex, fast-changing world of work. These initiatives are promoted throughout the curriculum both by specific courses and by their infusion into all courses.

Promotion of computer literacy aims at preparing students for competent use of computers and other technology to support communication, learning, and research. The effective writing initiative focuses on the expectation that graduates will have good writing skills and will use those skills effectively for a variety of purposes and audiences. The information literacy initiative strives to produce effective users of libraries and other sources of information, including electronic media and online databases. The international perspectives initiative fosters in students an awareness of the world as a global community and a sense of the scope of its intellectual and cultural diversity.

## EXPECTATIONS

Earning a bachelor's degree from U M UC means that the graduate has acquired certain knowledge and developed certain skills:
A. To be able to use basic intellectual tools

1. to communicate effectively, both orally and in writing;
2. to use mathematical reasoning; and
3. to comprehend the nature, techniques, and limits of science and the social and behavioral sciences.
B. To be able to learn and to apply that learning to his or her career and life experience, which requires the capability
4. to define problems;
5. to utilize information resources such as libraries and computers; and
6. to analyze, synthesize, and integrate knowledge, perspectives, and techniques.
C. To have an understanding of historical and international perspectives that includes
7. knowledge of events and achievements through time as treated in subjects from history, the arts, and the humanities; and
8. acquaintance with at least one foreign language or culture.
D.To have mastered a considerable body of knowledge in one subject area or group of related subjects.

## REQUIREMENTS

In general, the UM UC degree requirements that apply to a student are those that were in effect when the student began continuous enrollment in any public institution of higher education in $M$ aryland. If a student has not been continuously enrolled, the requirements that apply are those that were in effect at UM UC at the time of the student's most recent enrollment in a public institution of higher education in M aryland. To be considered continuously enrolled, degreeseeking students must be, or have been, enrolled at a M aryIand public institution of higher education and have had no more than two sequential years of nonenrollment.

The following requirements for the Bachelor of Arts (B.A.) and Bachelor of Science (B.S.) are applicable to students who enroll on or after August 1, 1999.

## I. D egree Requirements

1. A minimum of 120 semester hours of credit is required for graduation.
2. At least 30 semester hours (normally the final 30 ) must be taken with UM UC. Of those, at least 21 semester hours must be in the combined primary and secondary areas of specialization, with at least 9 of the 21 semester hours in the primary area of specialization, and must include at least 15 semester hours of upper-level coursework.
3. A minimum grade-point average of 2.0 is required for graduation.
4. At least 45 semester hours of credit must be upper-level (for courses numbered 300 to 499). Of those, 15 semester hours must be earned in the primary area of specialization, 15 semester hours must be earned in the secondary area of specialization, 3 semester hours in intensive writing, and 9 semester hours must be earned in electives. The remaining 3 semester hours may be earned in any part of the curriculum.

## II. General Education Requirements (40-46 s.h.)

## Communications (12 sh.)

ENGL 101 or equivalent, a second writing course, an intensive upper-level writing course, and a course in either writing or speech. No more than 3 semester hours of writing credit may be earned through credit by examination. Neither EN GL 101 or equivalent nor upper-level intensive writing credit may be earned through credit by examination.

## Arts and H umanities (6-9 sh.)

O ne course in each of two of the following disciplines: ARTH, ARTT, HIST, HUMN, M USC, PHIL, THET, dance, or literature. Students must take at least one 3-semester-hour course in either the arts and humanities or the social and behavioral sciences that offers a historical perspective. D escriptions of approved courses contain the statement "fulfills the historical perspective requirement."

## Social and Behavioral Sciences (6-9 s.h.)

O ne course in each of two of the following disciplines: ANTH, BEH S, CCJS, ECON, GEOG, GVPT, PSYC, or SO CY. N ot all CCJS courses are eligible. Students should see a counselor for details. Students must take at least one 3 -semester-hour course in either the arts and humanities or the social and behavioral sciences that offers a historical perspective. D escriptions of approved courses contain the statement "fulfills the historical perspective requirement."

## Biological and Physical Sciences (6-7 sh.)

Two courses, of which at least one must be a laboratory course, taken from the following disciplines: AST R, BCH M, BIOL, BOTN , CHEM, ENTM, GEOL, GNSC, MICB, PH YS, or ZOOL. NUTR 100 also is eligible. Descriptions of approved laboratory science courses contain the statement "fulfills the laboratory science requirement."

## M athematics ( 3 s.h.)

O ne course at or above the level of college algebra. In some cases, an approved statistics course may fulfill this require ment. Students should see a counselor.

## Interdisciplinary and Emerging Issues (3-6 sh.)

A 3 -semester-hour course in computing taken in some part of the curriculum. The course chosen should be relevant to the way in which computers are used in the primary special-
ization. Three semester hours of coursework providing an international perspective must be taken in some part of the curriculum. Descriptions of approved courses contain the statement "fulfills the international perspective requirement."

The total for courses fulfilling the general education requirements must equal at least 40 semester hours.

## III. Specialization and Other Requirements

## Primary Area of Specialization ( $\mathbf{2 4}$ s.h.)

Credits must be from only one academic discipline (with a few exceptions) and must include 15 semester hours of upper-level credit. No grade may be lower than C. At least 9 semester hours must be earned through U M U C. Between these credits and those earned in the secondary area of specialization, 21 semester hours must be from UM UC.

## Secondary Area of Specialization (21 s.h.)

Credits must be earned in disciplines closely related to the primary area of specialization and must include at least 15 semester hours of upper-level credit. No grade may be lower than C . The primary area of specialization and the secondary area of specialization combined must contain at least 21 semester hours of credit earned through UM UC.

## Supporting C ourses (12 sh.)

For the B.A.: Either 12 semester hours of one foreign language or demonstrated proficiency in a foreign language through the intermediate level.

For the B.S.: 12 semester hours in courses functionally related to the primary area of specialization and the secondary area of specialization. Students should seek guidance from a counselor as to what courses are acceptable.

## Electives (17-23 s.h.)

Credits must include at least 9 semester hours of upper-level coursework. Electives may be taken in any academic discipline. No more than 21 semester hours may consist of vocational or technical credit. Pass/fail credit may be used for electives only.

At U M UC, students who have already received a bachelor's degree from another regionally accredited institution, or from UM UC, can broaden their education by earning a second bachelor's degree with a different discipline as a primary specialization. UM UC does not award concurrent dual degrees for double primary specializations, however.

A student must have received the first bachelor's degree to be eligible to begin a second. For a second bachelor's degree, the student needs to complete at least 30 semester hours through UM UC after completing the first degree.

The new set of 30 semester hours must consist of at least 21 semester hours in the student's new primary specialization (including at least 15 semester hours at the upper level) and a minimum of 9 semester hours consisting of an upper-level writing course, a computer course, and an international perspective course, unless satisfied by the previous degree. If these courses were satisfied in the previous degree, the 9 semester hours should be substituted with courses related to the primary specialization. The combined credit in both degrees must add up to at least 150 semester hours.

The student needs to complete all requirements for the primary specialization. For purposes of determining what requirements apply to a given student, the applicable date is the date the student started coursework at UM UC after being admitted into the second undergraduate degree program. As with other degrees, continuous enrollment is required. A minimum grade-point average of 2.0 in all courses taken through UM UC is required for graduation.

All students need to be aware of what is entailed in a second bachelor's degree. Before beginning work or considering nontraditional options toward a second degree, each student should consult a resource team counselor. Counselors will be glad to explain the requirements for a second bachelor's degree and clarify its limitations.


## Undergraduate Curricula

## PRIMARY AND SECONDARY SPECIALIZATIONS

The primary specialization requires 24 semester hours of credit, while the secondary specialization requires 21 semester hours. The combined specializations must add up to 45 semester hours, including 15 semester hours of upper-level credit in the primary specialization and 15 semester hours of upper-level credit in the secondary specialization. At least 21 credits in the combined specializations, including at least 9 credits in the primary specialization, must be earned at UMUC.

## Primary Specializations

A primary specialization consists of courses from only one academic discipline, except for specializations in area studies, business and management, communication studies, computer studies, and management studies.

For most primary specializations, students may choose an appropriate combination of courses from one academic discipline to satisfy their academic, personal, or career objectives. Some primary specializations, however, have specific requirements, as indicated in the descriptions of various curricula that follow.

AVAILABLE FOR THE B.A. ONLY
A rea studies*
Art
English
History
H umanities

AVAILABLE FOR EITHER THE B.A. OR THE B.S.
Accounting
Behavioral and social sciences
Business and management
Communication studies
Computer and information science
C omputer information technology
Computer science
Computer studies
Criminology/criminal justice
Economics
Environmental management
Fire science
Gerontology*
Government and politics
H ealth services management
H otel and restaurant management*
Information systems management
M anagement*
M anagement studies
M athematics
M icrobiology*
Paralegal studies
Psychology
Sociology
Sociology/anthropology
Technology and management*

## Secondary Specializations

Secondary specializations are available in all of the academic disciplines listed on this page, as well as in a number of others. Courses from closely related fields may be combined to create an interdisciplinary secondary specialization. Students should consult a counselor for help in creating the secondary specialization best suited to their needs.

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## SPECIALIZATION DESCRIPTIONS

## ACCOUNTING

The accounting specialization studies the system that measures the economic activities of organizations, turns the information into reports, and communicates these findings to decision makers.

## Scope

The accounting curriculum at UM UC includes studies in managerial accounting, budgeting, accounting systems, financial management controls, financial analysis of performance, financial reporting, internal and external auditing, international accounting, accounting for government and nonprofit organizations, and taxation.

## G oals

A specialization in accounting provides graduates with an educational foundation for accounting and other management careers throughout the private and public sectors, including careers as auditors, controllers, cost analysts, management accountants, planners, or tax advisors/preparers.

## 0 bjectives

The student who graduates with a specialization in accounting will be able to

- Understand the professional and ethical issues involved in accounting situations and apply current principles of ethics and social responsibility to specific accounting and auditing situations.
- Understand the different dimensions of international accounting.
- Think critically, analyze information, and solve problems in dealing with complex accounting issues.
- Explain the major environmental influences on the development of accounting standards and practices.
- Use effective written and oral communication skills consistent with the business and professional environment.
- Use computers, accounting software, and databases.
- Apply technical and functional competency in accounting principles and standards to workplace situations.
- Understand the managerial issues involved in analyzing accounting information in order to make decisions.

A resource team counselor can provide more information about the requirements for this specialization, including information about courses available at a distance. To plan a course of study for this specialization, students should contact their counselor.

## Specialization Requirements

A primary specialization in accounting requires the completion of 24 semester hours from courses in accounting. At least 15 of the 24 semester hours must be in courses numbered 300 or above. The courses required for a specialization are listed below.

The following four courses are required:
ACCT 310 Intermediate Accounting I
ACCT 311 Intermediate Accounting II
ACCT 321 Cost Accounting
ACCT 323 IncomeTax Accounting
Four of the following courses are also required:
ACCT 326 Accounting Systems
ACCT 328 Accounting Software
ACCT 410 Fund Accounting
ACCT 411 Ethics and Professionalism in Accounting
ACCT 417 Advanced Tax Accounting
ACCT 422 Auditing Theory and Practice
ACCT 424 Advanced Accounting
ACCT 426 Advanced Cost Accounting
ACCT 427 Advanced Auditing Theory and Practice
ACCT 498A International Accounting
ACCT 498E Internal Auditing
Students must also complete the following related courses:
ACCT 220 Principles of Accounting I*
ACCT 221 Principles of Accounting II*
BM GT 230 Business Statistics
BM GT 364 M anagement and Organization Theory or
M GMT 300 Leadership and M anagement in an Age of Diversity

## Computing

In addition, one course ( 3 semester hours) is required in information systems management (IFSM ) or computer applications (CAPP). The following courses are recommended to satisfy this requirement:
(For students with little or no computer experience or coursework)

CAPP 103
Introduction to M icrocomputer Software or
IFSM 201 Introduction to Computer-Based Systems or
TM GT 201 Introduction to Computer-Based Systems

* ACCT 220 and 221 cannot be used to satisfy the primary specialization course requirements.


## (For students with prior experience or coursework in computing) CAPP 340 Computer Applications in M anagement

In addition to one of the computing courses listed above, the following course is recommended for all sudents.
IFSM 300 Information Systems in Organizations

## M athematics

It is required that students complete the following mathematics course to fulfill general education requirements:
M ATH 107 Selected Topics in College Algebra
or
A higher-numbered mathematics course from mathematics sequencel (see p. 141)

## Certification Requirements

Since educational requirements to sit for the Uniform CPA Examination differ among states, students planning to take the examination should determine the requirements by contacting the appropriate state board of accountancy. Students seeking information concerning the CPA examination in M aryland can contact their UM UC counselor or the Board of Accountancy for M aryland.

## ART

The art specialization studies the principles and processes of image making through both theory and practice. It is appropriate for students who wish to pursue art as a vocation and those who are interested in personal expression through art.

## Scope

The art curriculum covers principles and practices in design, drawing, painting, perspective, color, and theory, as well as other experiences consistent with translating ideas or concepts into visual images.

## G oals

The art specialization provides the essentials necessary for image making as a direct, expressive outlet with the goal of exhibiting current and forthcoming works. The curriculum provides a foundation for students who wish to become professional artists as well as for those who plan artistic careers in areas such as advertising, illustration, computer graphics, interior design, architecture, animation, and teaching.

## 0 bjecti ves

Students who graduate with a specialization in art will be able to

- Understand an international variety of models of artistic expression and demonstrate that understanding through
a series of designs, drawings, paintings, and other visual media.
- Articulate the language of art as a continuation of their development of aesthetic sensibilities, individual goals, and individual styles.
- U se experiences in fine art as the foundation for various art-related careers.
- Gather visual stimulation from a variety of sources and select and unify concepts, ideas, and images appropriately for visual display.
- Learn and apply techniques of independent research, including research that uses new technologies as art.


## Specialization Requirements

A primary specialization in art (for B.A. only) requires the completion of 24 semester hours from courses in art. At least 15 of the 24 semester hours must be in courses numbered 300 or above.

## BEH AVIORAL AND SOCIAL SCIENCES

Behavioral and social sciences is an interdisciplinary specialization that approaches the study of individuals and society from a variety of perspectives. Behavioral and social sciences explores human development, the workings of social institutions, and patterns of behavior that characterize social life. This specialization prepares students for the workplace through the development of research and analytical skills, understanding of social organizations, knowledge of the human life cycle, and awareness of factors defining cultural diversity.

## Scope

The behavioral and social sciences curriculum encompasses the areas of anthropology, ecology, political science, psychology, and sociology, brought together in an interdisciplinary approach. A specialization in behavioral and social sciences focuses on organizational behavior, the human life cycle, and human and institutional resources for understanding contemporary issues.

## G oals

A specialization in behavioral and social sciences produces graduates with a foundation in the social sciences that can be applied throughout the public and private sectors and that prepares them to enter graduate school and professional programs in the areas of the behavioral and social sciences. 0 pportunities for graduates include careers in administration, business management, government, health services, human resources/personnel, community service and outreach, education, and criminal justice. For example, graduates may pursue careers in religious organizations as ordained ministers, in military service as commissioned officers, in
business as managers, in education as social science teachers, and in international aid organizations as relief planners and coordinators.

## 0 bjectives

The student who graduates with a specialization in behavioral and social sciences will be able to

- Understand the disciplines of the basic behavioral and social sciences and the contributions that each makes toward our knowledge of individuals, cultures, and societies.
- Analyze individual and societal behavior from an interdisciplinary perspective.
- Apply international and historical perspectives to individual and societal questions.
- Employ basic research skills, including the use of online information sources and behavioral and social science research methodologies.
- Exercise advanced writing skills to communicate critically and clearly.
- Use the computer as a tool for communication and research.


## Specialization Requirements

A primary specialization in behavioral and social sciences requires the completion of 24 semester hours from courses in behavioral and social sciences. At least 15 of the 24 semester hours must be in courses numbered 300 or above. At least 3 semester hours in statistics are also required.

## BUSINESS AND MANAGEMENT

The business and management specialization deals with complexities in the business environment and the individual organization, including policies and procedures, planning, budgeting, organizing, staffing, controlling, researching, analyzing, and problem solving. Study within this specialization focuses on functional knowledge and skills and targets the cultivation of analytical skills, problem-solving ability, and critical thinking for general management. It also serves as excellent preparation for graduate study in business and management.

## Scope

The business and management curriculum includes studies in accounting, business law, entrepreneurship, ethics and social responsibility, finance, human resource management, international business, labor relations, logistics, management and organization, marketing, organizational behavior, production management, public policy, real estate, statistics, and strategic management.

## G oals

A specialization in business and management provides graduates with an educational foundation for business- and management-related careers in for-profit and not-for-profit organizations and the public sector. O pportunities for graduates include careers as managers in business, government, and other organizations.

Associated specializations are accounting, computer and information science, economics, government and politics, health services management, hotel and restaurant management, information systems management, management, management studies, and technology and management.

## 0 bjecti ves

The student who graduates with a specialization in business and management will be able to

- Understand the domestic and global dimensions of and influences on business and management.
- Understand and apply key concepts and theories in business and management.
- Understand and appreciate philosophies of ethics and social responsibility relevant to business and management.
- D evelop effective written and oral communications consistent with the business and professional environment.
- Think critically and constructively and perform research in business and management.
- D evelop innovative leadership and team-management skills necessary for success in a diverse and changing workplace.


## Specialization Requirements

A primary specialization in business and management requires the completion of 24 semester hours from courses in business and management. At least 15 of the 24 semester hours must be in courses numbered 300 or above. The courses required for a specialization are listed below.

Your resource team counselor can provide more information about the requirements for this specialization, including information about courses available at a distance. To plan a course of study for this specialization contact your counselor.

The following course is required for students with fewer than two years of business or management work experience:
BM GT 110 Introduction to Business and $M$ anagement
O ther required courses are
M ATH 107 Selected Topics in College Algebra or
A higher numbered mathematics course from mathematics sequencel (see p. 141).

| BM GT 230 | Business Statistics <br> or |
| :--- | :--- |
| M GM T 316 | Business Analysis M ethods <br> or |

Another approved statistics course
ACCT 220 Principles of Accounting I
ACCT 221 Principles of Accounting II
ECON 201 Principles of Economics I
ECON 203 Principles of Economics II
BM GT 364 M anagement and Organization Theory or
Another approved 3-semester-hour course in management

| IFSM | 300 | Information Systems in O rganizations <br> or |
| :--- | :--- | :--- |
| CAPP | 340 | Computer Applications in M anagement <br> or |

Another approved 3-semester-hour course in information systems management, computer applications, or computer and information science

At least one upper-level course from four of the following seven areas is required. Some courses that satisfy the requirements in each of the seven areas are listed below. Information on other acceptable courses is available from U M U C counselors.

## Accounting

ACCT 321 | Cost Accounting* |
| :--- |
| or |

Any other upper-level course in accounting

## Business, Society, and Public Policy

BM GT 482 Business and Government or
BM GT 496 Business Ethics and Society

## Business Law

| BM GT 378 | Legal Environment of Business |
| :--- | :--- |
| BM GT 380 | Business Law I <br> or |
| BM GT 381 | Business Law II <br> or |
| BM GT 468 | Employment Law for Business |

## Finance

BM GT 340 Business Finance
or
Any other upper-level course in finance

## H uman Resource $M$ anagement and Labor Relations

| BM GT 360 | Human Resource M anagement <br> or |
| :--- | :--- | :--- |
| BM GT 362 | Labor Relations |
| BM GT 460 | or <br> Human Resource M anagement: Analysis <br> and Problems |
|  | or |

Any other upper-level course in human resource management or labor relations

## M anagement and 0 rganization

BM GT $364 \quad \mathrm{M}$ anagement and Organization Theory or
BM GT 385 Production and O perations M anagement or
BM GT 392 International Business M anagement or
BM GT $461 \quad$ Entrepreneurship
or
BM GT $464 \quad$ Organizational Behavior or
BM GT 495 Business Policies and Strategic $M$ anagement or
Any other upper-level course in management and organization

## M arketing

BM GT $350 \quad$ M arketing Principles and O rganization

## Recommended Foundation Courses and Sequencing

Several courses are recommended for students with a primary specialization in business and management regardless of intended career or area of emphasis. Recommended courses, including the preferred sequence, are provided below to help students select courses to complete their specialization.

The following course is required for students with fewer than two years of business or management work experience:
BM GT 110 Introduction to Business M anagement
O ther required and recommended foundation courses are
MATH 107
Selected Topics in C ollege Algebra
COMM 390
COMM 394
Writing for M anagers
or
Business W riting
or
COMM 393 Technical Writing
BMGT 230
Business Statistics
or
M G M T 316 Business Analysis M ethods

[^1]| ECON | 201 | Principles of Economics I |
| :--- | :--- | :--- |
| ECON | 203 | Principles of Economics II |
| ACCT | 220 | Principles of Accounting I |
| ACCT | 221 | Principles of Accounting II |
| BM GT | 364 | M anagement and O rganization Theory |
| IFSM | 300 | Information Systems M anagement <br> and/or |
| CAPP | 340 | Computer Applications in M anagement <br> or |
| IFSM | 201 | Introduction to Computer-Based Systems <br> or |
| TM GT | 201 | Introduction to Computer-Based Systems |

The following course is strongly recommended for students in this specialization:
BM GT 495 Business Policies and Strategic M anagement
The following upper-level courses are recommended for a general specialization in business and management:

| BM GT 340 | Business Finance |
| :--- | :--- | :--- |
| BM GT 350 | M arketing Principles and Organization |
| BM GT 360 | Human Resource M anagement |
| BM GT 380 | Business Law |
| BM GT 392 | International Business M anagement |

O ther upper-level BM GT courses can be selected based on student interest and career goals.

## Emphases

Business and management offers eight areas of emphasis for students wishing to develop specialized skills and knowledge in the business environment as appropriate to their career goals. Each of the eight areas of emphasis requires the completion of 15 semester hours from upper-level courses in a single area of emphasis, with a grade of at least $C$ in each course. Up to 6 semester hours of Co-op credit may be counted toward an emphasis.
The eight areas of emphasis and the upper-leved courses from which students can choose to complete the emphases are as follows

## BUSINESS LAW AND PUBLIC POLICY

The business law and public policy emphasis provides intensive study focusing on legal, social, environmental, technological, and ethical issues affecting business, industry, and government. The emphasis prepares students for careers in contracting and procurement, environmental management, and public policy analysis, and adds to the knowledge of human resources, labor relations, and information systems. In addition, this area of emphasis prepares students to continue to law school and become attorneys, or to pursue graduate studies in business, public administration, or other related policy fields.

Students must complete 15 semester hours from the following courses with a grade of $C$ or better for an emphasis.

| BM GT | 378 | Legal Environment of Business |
| :---: | :---: | :---: |
| BM GT | 380 | Business Law I |
| BM GT | 381 | Business Law II |
| BM GT | 462 | Labor Relations Law (formerly Labor Legislation) |
| BM GT | 468 | Employment Law for Business |
| BM GT | 481 | $M$ anagement in the D eregulated Utilities Environment (formerly Public Utilities) |
| BM GT | 482 | Business and Government |
| BM GT | 495 | Business Policies and Strategic M anagement (business capstone course) |
| BM GT | 496 | Business Ethics and Society |
| BM GT | 498F | Environmental M anagement and Business |
| BM GT | 498J | Legal Aspects of Technology M anagement (formerly Law and Technology M anagement) |
| BM GT | 4980 | The Global M anager and Public Policy |
| BM GT | 498P | International Business Law |

## CUSTOMER SERVICE AND OPERATIONS MANAGEMENT

The customer service and operations management emphasis focuses on how the latest management techniques can be used to increase efficiency in company operations and improve the products and services offered by an organization. The courses in the emphasis address such areas as improving business processes in the production or service environment, acquiring a working knowledge of procure ment logistics and cost estimating, and dealing with the specific customer service and operations issues faced by organizations in the hospitality industry. Students can prepare for careers in customer service management, production and operations analysis, and hospitality (hotels, restaurants, and other related industries).

Students must complete 15 semeter hours from the following courses with a grade of C or better for an emphasis.

| BM GT 370 | Introduction to Transportation M anagement |
| :--- | :--- | :--- |
| BM GT 372 | Introduction to Logistics M anagement |
| BM GT 375 | Procurement M anagement |
| BM GT 385 | Production and O perations M anagement |
| BM GT 395 | Customer Service M anagement |
| H RM T 303 | Hospitality Facilities O perations and <br> M aintenance |
| HRMT 401 | Law and the H ospitality Industry |

HRMT 402
HRMT 440
MGMT 425
MGMT 440
MGMT 445
TMGT 302

TMGT 430
TMGT 444

H otel $M$ anagement and $O$ perations
Financial Analysis for the H ospitality Industry Total Q uality M anagement
Cost Proposal M ethods
G lobal Technology and Innovation Strategy
M anagement: Perspectives, Process, and Productivity
Project M anagement
Risk

## ENTREPRENEURIAL MANAGEMENT

The entrepreneurial management emphasis provides students with a broad perspective on how to plan, start, and operate a new venture- whether a small-business venture or a new business within a large organization. Courses in the emphasis focus on an integrated approach to the development of a business venture including marketing, financial analysis and planning, management of operations, human resources, and decision-making methods. Students electing this emphasis will be prepared to start and operate a new business, consult to entrepreneurs, and work in a new, strategic business unit in a large organization.

Students must complete 15 semester hours from the following courses with a grade of C or better for an emphasis.
BM GT 324 HomeBased Business
BM GT 325 The Small-Business Plan
BM GT 327 Financial Analysis and Planning for Entrepreneurs
M GMT 330 Entrepreneurship and New Venture Planning
M GMT 334 M anaging Early-Stage Ventures
M G M T 336 M anaging Strategic Venture G rowth and Industry
M GMT 337 Building the Entrepreneurial Team
M GMT 339 Government and Business Contracting
M GMT 436 Business O pportunities for the Entrepreneur of Tomorrow

## FINANCE

The finance emphasis familiarizes students with the institutions, theory, and practice involved in the allocation of financial resources within the private sector. It is also designed to incorporate study in such related disciplines as economics and accounting, and the quantitative areas. The emphasis prepares students for careers in financial analysis and management, investment analysis and portfolio management, investment banking, insurance and risk management, banking, and international finance. Students can also prepare for graduate study in business administration, management, accounting, quantitative areas, economics, and law.

Students must complete 15 semester hours from the following courses with a grade of C or better for an emphasis.

| BM GT 340 | Business Finance |  |
| :--- | :--- | :--- |
| BM GT | 343 | Investments |
| BM GT | 345 | Property and Liability Insurance |
| BM GT | 346 | Risk M anagement |
| BM GT | 347 | Life Insurance |
| BM GT | 440 | Financial M anagement |
| BM GT | 443 | Security Analysis and Valuation |
| BM GT | 444 | Futures Contracts and Options |
| BM GT | 445 | Commercial Bank M anagement |
| BM GT | 446 | International Finance |

## general management

The general management emphasis stresses the integration of contemporary theory and practice. Courses in the emphasis focus on current issues in the workplace environment and the organization, including such areas as leadership and management, managing diversity, team building, ethics and social responsibility, and strategic management. Students electing this emphasis will be prepared for managementrelated careers in business, not-for-profit organizations, and the public sector.

Students must complete 15 semeter hours from the following courses with a grade of C or better for an emphasis.

| BMGT 364 | M anagement and O rganization Theory |
| :---: | :---: |
| BMGT 464 | Organizational Behavior |
| BMGT 465 | Organization D evelopment and Change |
| BMGT 495 | Business Policies and Strategic M anagement |
| MGMT 300 | Leadership and $M$ anagement in an Age of Diversity |
| M GM T 301 | Accounting for M anagers |
| M GM T 305 | The G lobal Business Environment |
| TMGT 302 | M anagement: Perspectives, Process, Productivity |
| TMGT 305 | M anaging in the Public Sector |
| TMGT 340 | The Business/G overnment Relationship |
| TMGT 350 | Organization D evelopment |

## HUMAN RESOURCE MANAGEMENT AND LABOR RELATIONS

The human resource management and labor relations emphasis recognizes that people are the largest asset of most of today's companies. Courses in the emphasis focus on indepth knowledge and skills needed by contemporary human resource and labor relations managers. The emphasis pre pares students in workforce recruitment, selection, motivation and compensation, and training and performance appraisal; OSH A; and organization development. Students
electing this emphasis will be prepared for careers in human resource planning, affirmative action, salary and benefits administration, recruitment, and labor relations.

Students must complete 15 semeter hours from the following courses with a grade of $C$ or better for an emphasis.

| BM GT | 360 | H uman Resource M anagement |
| :--- | :--- | :--- |
| BM GT | 362 | Labor Relations |
| BM GT | 364 | M anagement Organization and Theory |
| BM GT | 392 | International Business M anagement |
| BM GT | 395 | Customer Service M anagement |
| BM GT | 398 M | Business Reengineering and Change |
| BM GT | $398 N$ | Organizational Communication |
| BM GT | 460 | Human Resource M anagement: Analysis <br> and Problems |
| BM GT | 463 | Public-Sector Labor Relations |
| BM GT | 464 | Organizational Behavior |
| BM GT | 465 | Organization D evelopment and Change |
| BM GT | 468 | Employment Law for Business |
| BM GT | $498 G$ | Organizational Change and Diversity |
| BM GT | 498 H | M anaging Teams in O rganizations |
| BM GT | 4981 | Employee Training and D evelopment |

## MARKETING

The marketing emphasis provides intensive study of the exchange activities that cause businesses to produce revenue. Focusing on the fulfillment of customer needs, the emphasis explores how goods and services are developed and priced, moved from producer to users, and promoted to bring about the exchange in both domestic and global markets. Students can prepare for careers in marketing research, advertising and sales promotion, sales and sales management, transportation management, and brand management.

Students must complete 15 semeter hours from the following courses with a grade of $C$ or better for an emphasis:
BM GT $350 \quad$ M arketing Principles and Organization (prerequisite for all other marketing courses)
BM GT 353 Retail M anagement
BM GT 354 Integrated M arketing Communications (formerly Promotion M anagement)
BM GT 355 Professional Selling (formerly BM GT 498B Salesmanship and Selling)
BM GT 372 Introduction to Logistics M anagement
BM GT 388A M arketing Channels
BM GT 395 Customer Service M anagement
BM GT 398B Issues in Nonprofit M arketing
BM GT 3980 M arketing on the Internet

| BM GT | 398R | Computer Applications in M arketing (formerly Electronic M arketing and Commerce) |
| :---: | :---: | :---: |
| BM GT | 3984 | M arketing Public Relations |
| BM GT | 398V | Issues in Pricing |
| BM GT | 451 | C onsumer Analysis |
| BM GT | 452 | M arketing Research M ethods |
| BM GT | 453 | Business M arketing |
| BM GT | 454 | G lobal M arketing (formerly International M arketing) |
| BM GT | 455 | Sales M anagement |
| BM GT | 456 | Advertising |
| BM GT | 457 | M arketing Policies and Strategies (marketing capstone course) |
| BM GT | 498D | Services M arketing M anagement |

## TECHNOLOGY MANAGEMENT

The technology management emphasis focuses on how executives manage and integrate people and technology to make their organizations more productive, competitive, and profitable. Courses in the emphasis address a broad range of leadership and management theories and strategies used in modern business and government organizations. The courses also explore the effect that technological innovations in various fields will have on organizations. Students can prepare for leadership and management positions in manufacturing and service industries and government and not-for-profit organizations.

Students must complete 15 semester hours from the following courses with a grade of $C$ or better for an emphasis:

TM GT 201 Introduction to C omputer-Based Systems
TM GT 305 M anaging in the Public Sector
TM GT 310 Problem Solving
TM GT 411 Systems Performance
TM GT 412 Program Analysis and Evaluation
TM GT 430 Project M anagement
TMGT 444 Risk
TM GT 480 Exploring the Future

## COMMUNICATION STUDIES

Communication studies provides a cross-disciplinary curriculum with theoretical and practical foundations in information development, journalism, and professional communication. Emphasizing applications appropriate to government, business, industry, and mass media, the curriculum helps students use appropriate investigative techniques as well as develop and refine written and oral skills needed for professional communication in workplace and public environments.

## Scope

The communication studies specialization instructs students in written and oral communication theory and its application to workplace processes, techniques, and technologies, as well as theory appropriate for communication through the mass media. The curriculum offers multidisciplinary courses and stresses how to meet the information needs of a hightechnology, globally oriented, and diverse society. Students may select a general emphasis allowing broad program flexibility or a more structured emphasis in business communication, journalism, speech communication, or technical communication.

## G oals

A specialization in communication studies provides for the growth of adult learners as expert communicators who can meet the challenges posed by the global workplace and the global presentation of public information. The specialization's cross-disciplinary approach produces graduates who have the appropriate balance of theoretical background and sophisticated, practical communication skills needed in today's workplace and public information environments. Graduates are prepared to work in a wide variety of communication specialties including technical writing, editing, corporate communications, and information design, as well as in the fields of advertising, public relations, and journalism.

## 0 bjectives

The student who graduates with a specialization in communication studies will be able to

- Understand communication theory and how it applies to particular types of communication, including mass communication.
- Apply effective communication strategies within various types of communication.
- Gather information from a variety of sources and critically identify, examine, and present issues associated with information communicated to diverse audiences.
- Learn about and apply techniques of independent research, including research that uses technology and fosters information literacy.
- Recognize the legal and ethical implications of communication and produce communication that is ethically and legally responsible.
- Recognize intercultural issues relevant to communication and demonstrate skill in addressing them.
- Understand how computer technology is used to develop and manage information and use computer resources to increase the efficiency and effectiveness of communication.
- Write and edit effectively and demonstrate a clear understanding of the respective processes, tools, and techniques that apply to various types of communication.
- Assess a particular communication environment and evaluate the communication skills needed for that environment.
- D evelop communication products and processes appropriate to a given audience, environment, and need.
- D emonstrate an understanding of the elements of typography, layout, and design and be able to effectively apply them to various kinds of communication.
- Apply appropriate media and techniques to the solution of any given communication problem.
- Work as a capable communication professional within a specific communication field.


## Specialization Requirements

A primary specialization in communication studies requires the completion of 24 semester hours from the courses listed below. Within the required 15 semester hours of upper-level credit, students must take one writing course and one speech or English language course. Students, except those with an emphasis in journalism, must completeCOM M 495 Seminar in Workplace Communication or COM M 490 Seminar in Technical Communication during the final 30 semester hours of undergraduate study.

Courses that apply to a specialization in communication studies are
BEH S 462 The Psychology of Advertising
COMM 293 Technical Report Writing
COMM 380 Language in Social Contexts
COM M 390 Writing for M anagers
COM M 393 Technical Writing
COMM 394
COMM 395
COMM 490
COMM 491
COMM 492
COMM 493
COMM 494
COMM 495 Seminar in Workplace Communication

| COM M | 496 | Writing for the Computer Industry |
| :--- | :--- | :--- |
| ENGL | $278 F$ | Introduction to Principles of Text Editing |
| ENGL | 396 | Critical Analysis in Reading and Writing |
| ENGL | 4791 | The Language of Advertising |
| ENGL | 493 | Advanced Expository Writing |
| JOUR | 201 | Writing for the M ass M edia |
| JOUR | 202 | Editing for the M ass M edia |
| JOUR | all 300- and 400-level courses |  |
| M GM T 320 | Organizational Communication |  |
| SPCH | 100 | Foundations of Speech Communication |
| SPCH | 107 | Speech Communication Principles and Practice |
| SPCH | 222 | Interviewing |
| SPCH | all $300-$ and 400-level courses |  |

The following courses are recommended as electives or related courses:

| CAPP | 303 | Advanced Features of M icrocomputer <br> Application Software |
| :--- | :--- | :--- |
| CAPP | 311 | Advanced D esktop Publishing |
| IFSM | 201 | Introduction to Computer-Based Systems |
| IFSM | 303 | Human Factors in Information Systems |

## Emphases

Students in communication studies may elect one of five paths: a general emphasis in communication studies that allows flexibility, or a structured emphasis in business communication, journal ism, speech communication, or technical communication.

## BUSINESS COMMUNICATION

Business communication unites groups within an organization to achieve the organization's goals. This emphasis gives students the knowledge and skills to become effective communicators within the network of information exchanges among people working in corporations, government agencies, and other complex organizations.

Students with an emphasisin business communication must complete the following courses as part of the required 24 semester hours:
COM M 390 Writing for M anagers
COM M 394 Business Writing
COMM 492 Proposal Writing
COM M 495 Seminar in Workplace C ommunication
M GMT 320 Organizational Communication or
SPCH 424 C ommunication in Complex Organizations
SPCH 470 Theories of Listening

The following courses are recommended as electives or related courses

CAPP 303 Advanced Features of M icrocomputer Application Software<br>CAPP 311 Advanced D esktop Publishing

## JOURNALISM

Journalism (mass communication) studies the processes and principles of how to gather information, process and produce it, and disseminate it to an audience or audiences through a variety of media, with the purpose of informing. It is appropriate for students seeking to become communicators in journalism, public relations, and advertising.

The journalism emphasis includes courses of study in news writing and editing for print media, broadcast writing, magazine writing, communication history and theory, communication law, public relations theory and practice, and advertising theory and practice.

An emphasis in journalism requires the completion of 15 semester hours in courses designated JOUR, with the remaining 9 semester hours in courses approved for the communication studies specialization. Students completing the journalism emphasis must take both JOUR 201 and 202. In addition, students specializing in communication studies with an emphasis in journalism must ensure that they have completed at least 15 of the 24 semester hours required for the specialization in courses numbered 300 or above.

## SPEECH COMMUNICATION

The speech communication emphasis is designed to enable students to develop a specialized background and skills in dimensions of speaking and listening that relate to the workplace. This emphasis provides students with principles and practice so that they can function as oral communication specialists in a variety of communication positions within organizations.

Students should have taken SPCH 100 or have comparable public speaking experience before enrolling in courses for the speech communication emphasis.

Students with an emphasis in speech communication must complete 15 semester hours from among the following courses as part of the required 24 semester hours for a communication studies specialization:

| SPCH | 397 | Delivering O rganizational Presentations: <br> Technique and Technology |
| :--- | :--- | :--- |
| SPCH | 420 | Group D iscussion and D ecision M aking |
| SPCH | 421 | Communication M anagement |
| SPCH | 424 | Communication in C omplex O rganizations |
| SPCH | 426 | Negotiation and Conflict M anagement |
| SPCH | 470 | Theories of Listening |
| SPCH | 482 | Intercultural Communication |

The remaining 9 semester hours should include COM M 490 or COM M 495 and other courses approved for the communication studies specialization.

## TECHNICAL COMMUNICATION

The emphasis in technical communication helps students to develop specialized skills in writing and designing text and graphics, and to become knowledgeable in systems and contexts of technical communication. This emphasis refines skills in making specialized information accessible to a variety of audiences.

Students with an emphasis in technical communication must complete the following courses as part of the required 24 semes ter hours:
COMM 393 Technical Writing
COMM 490 Seminar in Technical Communication
COMM 491 Technical Editing
COMM 493 Graphics/Text Integration
COMM 492 Proposal Writing
or
COMM 496 Writing for the Computer Industry
SPCH 470 Theories of Listening
The following courses are recommended as electives or related courses.

| CAPP | 303 | Advanced Features of <br> M i crocomputer Application Software |
| :--- | :--- | :--- |
| CAPP | 311 | Advanced D esktop Publishing |
| IFSM | 201 | Introduction to Computer-Based Systems |
| IFSM | 310 | Human Factors in Information Systems |

## COMPUTER AND INFORMATION SCIENCE

The computer and information science specialization studies the development and implementation of effective solutions to practical problems using computer-based systems.

## Scope

The computer and information science specialization includes studies in programming languages, software engineering, computer networks, distributed systems, database systems, and operating systems.

## G oals

The specialization in computer and information science produces graduates with an educational foundation suitable for careers in application development, system development, network planning, or database implementation.

## 0 bjecti ves

The student who graduates with a specialization in computer and information science will be able to

- Understand relevant theory, techniques, languages, and systems for developing computer-related solutions to practical problems.
- Work effectively in computer application environments.
- Use oral and written communication skills in problem definition, application development, and solution presentation.
- Apply knowledge of concepts and principles to facilitate the handling of changes in computer technology.


## Specialization Requirements

A primary specialization in computer and information science requires the completion of 24 semester hours from courses in computer and information science. At least 15 of the 24 semester hours must be in courses numbered 300 or above. Students without recent experience in problem solving with computers must take CM IS 102 before enrolling in any other CM IS course. CM IS 102 is not counted in the 24 credits required for the primary specialization. Students must take M ATH 107 Selected Topics in College Algebra or a higher-numbered mathematics course from mathematics sequence I or II (see p. 141). Courses required for a specialization in computer and information science are listed below.

The following four courses or comparable knowledge are required:
CMIS 140 Introductory Programming in C +
CMIS 160 Discrete M athematics for Computing
CMIS 240 D ata Structures and Abstraction
CMIS 310 Computer Systems and Architecture

This specialization also requires at least one upper-level course in three of the following four areas in computer and information science.

## D atabase Systems

| C M IS | 320 | D atabase Systems |
| :--- | :--- | :--- |
| C M IS | 420 | Advanced Relational D atabases |

## Languages and Systems

| CMIS | 305 | Introduction to Ada |
| :--- | :--- | :--- |
| CMIS | 315 | Programming and Application in C ++ |
| CM IS | 325 | UNIX with Shell Programming |
| CM IS | 345 | O bject-O riented D esign and Programming |
| CM IS | 405 | Applying Advanced Features of Ada |
| CMIS | 415 | Advanced UNIX and C |

## Networking and Distributed Systems

| CMIS | 370 | Data Communications |
| :--- | :--- | :--- |
| CM IS | 435 | C omputer N etworking |
| CMIS | 445 | Distributed Systems |

## Software Engineering

| CMIS | 330 | Software Engineering Principles and <br> Techniques |
| :--- | :--- | :--- |
| CM IS | 455 | Project Planning and Requirements <br> Development |
| CMIS | 460 | Software D esign and Development |
| CM IS | 465 | Software Verification and Validation |

## COMPUTER INFORMATION TECHNOLOGY

The computer information technology specialization consists of studies in information technology areas that lead to technical certification.

## Scope

The computer information technology specialization prepares students to be network specialists, database administrators, and program developers.

## G oals

The computer information technology specialization is designed to help students acquire credentials, technical competence, and personal attributes needed to effectively respond to industry and government employment opportu-
nities. C ourses are directed toward the identification and development of skills and education that workers need to succeed in high-demand employment categories such as network administration, network engineering, database design and development, and program development.

## 0 bjectives

The student who graduates with a specialization in computer information technology will be able to

- Use technical skills in network engineering, installation, and maintenance.
- Use decision-making skills and problem-solving capabilities, including client needs assessment.
- Use technical writing skills to produce proposals, reports, briefings, and documentation.
- Communicate effectively using oral and computer-based presentation techniques.
- Apply effective information research techniques.
- Perceive situations through a historical and global information technology perspective.


## Specialization Requirements

A primary specialization in computer information technology requires 24 semester hours, from courses in computer information technology (currently under development), computer and information science, computer applications, computer science, and information systems management. At least 15 semester hours must be earned in courses numbered 300 or above. A primary specialization in computer information technology also requires a secondary specialization in computer information technology. Students must take M AT H 107 Selected Topics in College Algebra or a higher-numbered course from mathematics sequence I or II (listed on p. 141). Up to 6 semester hours of Co-op credit is accepted toward a specialization and is strongly recommended.

Students are encouraged to strive for early identification of employment goals to enhance the effectiveness of course choices. Also, in selecting a course or emphasis, students should remember to include the lower-level courses that are prerequisites for the upper-level courses they intend to take.

## Emphases

Emphases within the specialization have a technical certification (computer information technology) course requirement of at least 15 semester hours of upper-level credit with a grade of at least $C$ in each course. Emphases are currently available in W indows NT and N ovell; more emphases are under development.

Students should contact the Computer and $M$ athematical Sciences department at 301-985-7787 for detailed information on the computer information technology curriculum.

## COMPUTER SCIENCE

The computer science specialization studies the theory that underlies the design of computer software and the architecture of computer systems.

## Scope

The curriculum of computer science includes studies in software development and the theory of programming languages; computer organization and computer system architecture; discrete mathematics, mathematical logic, and the theory of computation; the theory of data structures and algorithms; and artificial intelligence.

## G oals

The specialization in computer science provides graduates with an educational foundation for careers in computer software or computer system design, including careers as software engineers, application software designers, system programmers, or system engineers.

## 0 bjectives

The student who graduates with a specialization in computer science will be able to

- Understand the effect of computerization on the global workplace.
- Convey computer software and system designs effectively, both in speaking and in writing.
- Design and develop computer software using a variety of programming languages.
- Apply the theory of computer organization and computer system architecture.
- Apply the theory of data structures and algorithm design and efficiency.
- Apply the mathematical foundations of computer science.
- Use information resources to assist with projects or research.


## Specialization Requirements

A primary specialization in computer science requires the completion of 24 semester hours from courses in computer science. At least 15 of the 24 semester hours must be in courses numbered 300 or above. Courses required for a specialization in computer science are listed below.

The following three courses are required:
CM SC 130 Introductory Computer Science
CM SC 150 Introduction to Discrete Structures
CM SC 230 Elementary D ata Structures

Two of the following upper-level courses are also required:
CMSC 311 Computer Organization
CM SC 330 Advanced Programming Languages
CM SC 335 O bject-O riented and C oncurrent Programming
At least three 400 -level CM SC courses (to total a minimum of 15 semester hours of upper-level coursework) are also required.

Students must also take a calculus sequence totaling 6 to 8 credits (the equivalent of M AT H 140-141 or M AT H 220-221), preferably in the first year of study. O ther mathematically oriented courses (for example, courses on statistics and probability) are recommended as part of the curriculum of every student specializing in this discipline. To augment a specialization in computer science with workplace-oriented topics in computing, students should take courses in computer and information science.

## COMPUTER STUDIES

The computer studies specialization consists of an examination of computer systems and technology from various perspectives identified in the computer and information science, computer information technology, computer science, and information systems management specializations and in computer applications.

## Scope

The computer studies specialization allows the student to design a set of logically grouped courses in computer-related topics. Courses included in this primary specialization may be taken from computer and information science, computer applications, computer information technology, computer science, and information systems management.

## G oals

The computer studies specialization allows the student to combine courses from more than one computer-related discipline according to the student's particular needs and interests.

## O bjectives

The student who graduates with a specialization in computer studies will be able to achieve applicable objectives selected from those included under the computer and information science, computer information technology, computer science, and information systems management specializations, and computer applications.

## Specialization Requirements

A primary specialization in computer studies requires the completion of 24 semester hours from courses in computer and information science, computer applications, computer information technology, computer science, and information systems management. At least 15 of the 24 semester hours must be in courses numbered 300 or above. Courses that may be used in a computer studies specialization are listed in the specialization descriptions for computer and information science, computer science, and information systems management.

A maximum of 9 semester hours of upper-level computer application courses from the following list may be included:

| CAPP | 305 | Introduction to Visual Basic Programming |
| :--- | :--- | :--- |
| CAPP | 340 | Computer Applications in M anagement |
| CAPP | 386 | Internet: An Advanced Guide |
| CAPP | 390 | N ovell N etWare Administrator |
| CAPP | 485 | Issues in Cyberspace |
| CAPP | 498 A | Applications Integration |
| CAPP | $498 B$ | Advanced Visual Basic Programming |

Students must take M ATH 107 Selected Topics in College Algebra or a higher-numbered mathematics course from mathematics sequence I or II (listed on p. 141).

In designing an academic program, students should remember to include the lower-level courses that are prerequisites for the upper-level courses they intend to take.

## CRIMINOLOGY/CRIMINAL JUSTICE

The criminology/criminal justice specialization covers the study of crime, delinquency, law enforcement, and corrections. The curriculum supports entry into or promotion in police, corrections, and related government services.

## Scope

The criminology/criminal justice specialization includes courses in criminal law, juvenile delinquency, the categories and causes of crime, corrections, and security administration. Problems that arise in the work environment receive special attention in this specialization.

## G oals

The specialization in criminology/criminal justice is designed to provide graduates with a background in law-enforcement and corrections issues and to enhance responsible citizenship by emphasizing the constitutional basis of the U.S. system of criminal justice. The specialization supports advancement and increases vocational competence in professions related to
law enforcement and corrections, fosters more effective communication in writing and speaking, and establishes familiarity with the technological tools of the workplace in employment related to law enforcement and criminology.

## 0 bjecti ves

The student who graduates with a specialization in criminology/criminal justice will be able to

- Understand principles of effective law enforcement and security administration.
- Understand the causes of criminal behavior.
- Understand techniques of prevention and treatment of crime.
- Understand interrelations among components of the criminal justice system.
- Understand the role of the courts in the administration of justice.
- Effectively explain criminal behavior, treatment, and law enforcement in written and oral argument.
- Analyze law-enforcement issues as they relate to the U.S. Constitution.
- Analyze patterns of crime in American society.
- Review literature in the field using current technology.


## Specialization Requirements

A primary specialization in criminology/criminal justice requires the completion of 24 semester hours from courses in criminology/criminal justice. At least 15 of the 24 semester hours must be in courses numbered 300 or above. At least 3 semester hours in statistics are also required.

## Emphasis

The criminology/criminal justice specialization offers an emphasis in security operations and management.

## SECURITY OPERATIONS AND MANAGEMENT

The security operations and management emphasis within the criminology/criminal justice specialization helps students gain exposure to specific skills for managing the complex security operations of a business. The emphasis conveys a cohesive base of job-related skills, enhances career prospects, offers marketable expertise to make career changes feasible, and prepares graduates for licensing in security operations and management.

This emphasis requires the completion of a minimum of 15 semester hours in security-related courses designated CCJS, with the remaining 9 semester hours in courses approved for the criminology/criminal justice specialization.

Students must complete any five of the following securityrelated courses:
CCJS 357 Industrial and Retail Security Administration
CCJS 498C Computer Crime and Security
CCJS 498G Introduction to Security M anagement
CCJS 4981 Security: A M anagement Perspective

| CCJS | 498 K | Legal and Ethical Issues in Security <br> M anagement |
| :--- | :--- | :--- |
| CCJS | 498 L | Protection of Business Assets |
| GVPT | 401 | Counter-Terrorism |

The following courses are recommended as electives or related courses.

| GVPT | 210 | Introduction to Public Administration |
| :--- | :--- | :--- |
| CCJS | 331 | Contemporary Legal Policy Issues |
| CCJS | 340 | Law Enforcement Administration |
| IFSM | 310 | H uman Factors in Information Systems |

## ECONOMICS

The economics specialization studies the U.S. economic system and U.S. economic relations with the rest of the world and analyzes forces that determine production and distribution, price levels, income distribution, and other economic factors that influence the quality of life. This specialization is appropriate for students who require economic backgrounds for careers in business, labor, politics, law, finance, administration, or public service or who plan to continue specialized studies in economics or business at the graduate level.

## Scope

The economics specialization studies macro- and microeconomics, money and banking, international economics, mathematical economics, environmental economics, business economics, history of economic thought, public finance, comparative economic systems, and computer methods in economics. The curriculum examines attempts to deal with economics both as a problem-solving science and as a branch of intellectual history, and also addresses the economic issues that confront private individuals, political leaders, and businesses today.

## G oals

The economics specialization seeks to develop graduates who can apply the problem-solving and creative skills necessary for success in today's global, diverse, and technologically advanced economic environment. Problem-solving skills include deductive reasoning, an ability to consider complex problems through the use of parsimonious models, mastery of the fundamental principles of economics, and an ability to use decision-making techniques. Creative skills include the ability to identify economic issues and problems and frame them in ways other people do not see, devise novel policy proposals for dealing with problems, analyze both the intended and unintended effects of policies, and devise innovative methods to estimate the magnitude of these effects.

## O bjectives

The student who graduates with a specialization in economics will be able to

- Understand the principles and problems of modern economic life.
- Apply deductive and creative skills to a variety of economic issues, problems, and policies in diverse economic, political, and social settings.
- Analyze economic and social problems and personal, public, and business decisions.
- Analyze contemporary international economic problems.
- Exhibit written and oral communication skills to convey knowledge of economic issues and policies.
- Use basic library and computer skills to perform economic research and solve economic policy issues and problems.


## Specialization Requirements

A primary specialization in economics requires the completion of 24 semester hours from courses in economics. At least 15 of the 24 semester hours must be in courses numbered 300 or above. At least 3 semester hours in statistics are required.

## ENGLISH

The English specialization studies the nature and significance of literature through various approaches to literary works. It considers the relationship of literature to contemporary intellectual issues, focusing on humanistic problems of value.

## Scope

The English curriculum includes courses designed to build knowledge and skills in identifying and working with literary genres, acquiring historical and intercultural perspective, and appreciating the works of major authors. The curriculum includes courses that build critical-thinking and writing skills, foster understanding of language and linguistics, and explore special topics related to the study of literature, literary criticism, language, and writing.

## G oals

The specialization in English produces graduates with demonstrated skills in literary analysis and critical thinking and writing. These skills prepare students specializing in English for careers in education, law, writing and publishing, journalism, public relations, business, and management.

## 0 bjectives

A student who graduates with a specialization in English will be able to

- Read, analyze, and appreciate English and American literature and representative works from the literatures of other countries and cultures.
- Critically examine intellectual, moral, and ethical issues.
- Apply techniques of independent research, including research that uses technology and fosters information literacy.
- Analyze literary works, literary genres, literary criticism, the historical development of literature and language, and the contributions of major authors.
- Formulate ideas and convey them in clear English prose.
- Write effectively and demonstrate superior understanding of the writing process and writing techniques.
- Communicate abstract ideas clearly in oral presentation.


## Specialization Requirements

A primary specialization in English (for the B.A. only) requires the completion of 24 semester hours from courses in English. At least 15 of the 24 semester hours must be in courses numbered 300 or above.

The 15 semester hours required in upper-level English courses must include 3 semester hours in each of the five categories listed below.

## Analytical Foundation

ENGL 303 Critical Approaches to Literature

## Genre (e.g., Novel, Poetry, D rama)

| ENGL | 340 | Studies in Fiction, Poetry, and Drama |
| :---: | :---: | :---: |
| ENGL | 364 | 20th-Century African American Literature The Fictional Vision |
| ENGL | 377 | M edieval M yth and M odern N arrative |
| ENGL | 379B | M odern Children's Literature |
| ENGL | 379D | The D etective in Literature |
| ENGL | 434 | American D rama |
| ENGL | 435 | American Poetry |
| ENGL | 441 | The N ovel in America Since 1914 |
| ENGL | 446 | Postmodern British and American Poetry |
| ENGL | 454 | M odern D rama |
| ENGL | 457 | The M odern Novel |
| ENGL | 476 | M odern Fantasy and Science Fiction |
| ENGL | 479 | Selected Topics in English and American Literature |

## Historical Period

| ENGL | 310 | M edieval and Renaissance British Literature |
| :--- | :--- | :--- |
| ENGL | 312 | Romantic to M odern British Literature |
| ENGL | 313 | American Literature |
| ENGL | 350 | English and American Literature: Blake <br> to Conrad |
| ENGL | 425 | M odern British Literature |
| ENGL | 433 | American Literature: 1914 to the Present, <br> the M odern Period |
| ENGL | 436 | The Literature of American D emocracy |
| ENGL | 437 | Contemporary American Literature |

## Major Author

EN GL 304 The M ajor Works of Shakespeare
EN GL 379 Special Topics in Literature (as appropriate)
ENGL 402 Chaucer
EN GL 403 Shakespeare: The Early Works
EN GL 404 Shakespeare: The Later W orks
EN GL 406 Shakespeare: Power and Justice
ENGL 419 M ajor British Writers After 1800
ENGL 439 M ajor American Writers
ENGL 439F M ajor American Writers: Frost and Faulkner
ENGL 4391 M ajor American Writers: Twain and Crane
ENGL 439J Major American Writers: Fitzgerald and Hemingway
EN GL 479 Selected Topics in English and American Literature (as appropriate)

## Electives

COMM 380 Language in Social Contexts
ENGL 348 Literary Works by Women
EN GL 396 Critical Thinking in Reading and Writing
ENGL 466 The Arthurian Legend
ENGL 4791 The Language of Advertising
ENGL 479L Literary Classics on Film and Television
ENGL 479R The Literature of War
At least two courses, including any applied toward the genre, historical period, or major author requirements, must cover, exclusively or in part, literature written before 1900. O nly one course in writing (not including EN GL 101 or EN GL 303) may be applied to a primary specialization in English.

## ENVIRONMENTAL MANAGEMENT

Employment opportunities in government agencies, business, educational institutions, and nonprofit organizations are expected to grow to meet the demand for knowledgeable environmental managers. The environmental management specialization prepares students for those opportunities by studying all facets of interdisciplinary and multimedia (air, water, land) environmental management and related issues on a fundamental, practical, and global level.

## Scope

The environmental management specialization includes the study of basic scientific principles, government regulations, management strategies, and communication techniques for an understanding and integration of multimedia environmental manage ment, regulatory compliance, technological changes, health and safety management, emergency management, global resource conservation, and sustainable development.

## G oals

Courses in environmental management are designed to produce environmental managers who not only understand all aspects of the environmental industry but who are skilled in critical thinking, problem solving, project management, interpersonal relations, and team building and are able to plan, implement, and control all facets of environmental management.

## 0 bjectives

The student who graduates with a specialization in environmental management will be able to

- Apply and interpret the scientific principles, guiding regulations, and recommended practices of environmental management.
- Demonstrate knowledge of effective techniques for communicating scientific, technical, and legal information to diverse populations, including industry managers and employees, community groups, and the media.
- Develop comprehensive environmental management strategies and employ today's required skills of critical thinking, problem solving, project management, interpersonal relations, and team building.
- Appreciate and incorporate information technology and international perspectives.
- Understand the new paradigm of environmental management and prevention in addition to control and remediation.
- H ave a broad understanding of multimedia environmental management, including the development and application of cutting-edge technologies for greater costeffectiveness and work efficiency.
- Understand and integrate multimedia environmental management, regulatory compliance, recent technological changes, emergency management, health and safety management, global resource conservation, and sustainable development.


## Specialization Requirements

A primary specialization in environmental management requires the completion of 24 semester hours from courses in environmental management. Courses required for a specialization in environmental management are listed below.

The following five courses are required:
ENMT 301 Environment and Ecosystems M anagement
ENMT 320 Environmental $H$ ealth and Safety M anagement
ENMT 340 Environmental Technology
EN M T 405 Pollution Prevention and Other Strategies
EN MT 493 Environmental Regulations and Policy
The remaining courses required for a primary specialization must be chosen from the following courses These courses may also be applied to a secondary specialization or edective requirements, as appropriate. EN M T 495 is an integrated capstone course and should generally betaken in the student's final semester.

EN M T 305 H azardous M aterials Toxicology
ENM T 310 Emergency Planning and 0 perations M anagement
ENMT 315 Environmental Audits and Permits
ENMT 325 The Biosphere, Energy, and Sustainable D evelopment
ENMT330 Environmental M onitoring and Investigations
ENMT 350 Integrated Waste $M$ anagement
EN M T 360 Water Environment M anagement and Use
ENMT 370 Environmental Communications and Information Systems
EN M T 380 Outdoor and Indoor Air Quality M anagement
EN MT 390 Environmental Risk Assessment
EN M T 495 Environmental M anagement Issues and Solutions

The following courses, or their equivalents, are prerequisite to the required courses and should be taken early in the program. They may be applied to general education, secondary specialization, or elective requirements, as appropriate:

| GN SC | 100 | Physical Science |
| :--- | :--- | :--- |
| PH YS | 121 | FrFundamental Physics I <br> CHEM <br> 103 |
| CH Eneral Chemistry I |  |  |
| CH | 104 | Fundamentals of O rganic and Biochemistry |
| BIO L | 101 | Concepts in Biology |
| M ATH | 115 | PreCalculus |
| BEH | 202 | Introduction to Research M ethods and Statistics |
| BM GT | 230 | or |
| Business Statistics |  |  |

All students in the environmental management specialization are required to complete a minimum of 3 credits each in writing, management, and computers/information science from the following or equivalent courses, These credits may be applied to general education, secondary specialization, or elective requirements, as appropriate.

## Writing

COMM 293 Technical Report Writing
COM M 390 Writing for M anagers
COMM 393 Technical Writing
COM M 394 Business Writing

## M anagement

BM GT $364 \quad \mathrm{M}$ anagement and O rganizational Theory
M G M T 300 Leadership and M anagement in an Age of Diversity
TM GT 310 Problem Solving
TM GT 430 Project M anagement

## Computing

| CAPP | 303 | Advanced Features of M i crocomputer <br> Applications Software |
| :--- | :--- | :--- |
| IFSM | 210 | Introduction to Computer-Based Systems |
| IFSM | 300 | Information Systems in O rganizations |
| TM GT | 201 | Introduction to Computer-Based Systems |

## FIRE SCIENCE

The fire science specialization studies disaster planning and the administration of fire-protection services. Developed in conjunction with the National Fire Academy of the Federal Emergency Management Agency, the specialization serves fire-service professionals who seek state-of-the-art knowledge to support advancement to chief executive management and senior leadership positions. This specialization is also appropriate for professionals in related fields such as public safety, law enforcement, health services, insurance, and private-industry emergency response, as well as those in government who serve or interact with the fire services. The specialization provides an understanding of the interagency coordination necessary for fire prevention, emergency management, safe and successful fireincident command, and arson investigation.

## Scope

The fire science specialization encompasses all areas of incendiary-fire management. C ourses focus on analytical approaches to fire protection and investigation, personnel management, disaster and fire-defense planning, hazardous materials management, fire protection structure and system design, the role of the fire service within the community and political structure, and the phenomena of fire propagation.
The specialization improves the professional qualifications of all students and enhances their educational credentials and advancement prospects within their respective fields.

## G oals

A major goal is to prepare students to be effective and successful fire-service leaders and managers. In addition to comple tion of a Bachelor of Science, students may earn a National Fire Academy Certificate- awarded for completion of six courses.

A second goal is to prepare students for fire-protection administration and management careers in public safety and private industry, as well as professional-level positions in hazardous materials management and disaster planning. A third goal is to upgrade the professional skills of all students.

## 0 bjectives

The student who graduates with a specialization in fire science will be able to

- Recognize the legal basis for public safety responsibility and product liability.
- Explain fire fighting and disaster planning as practiced in other parts of the world.
- Write reports and make presentations of the quality expected by senior management.
- Use computer technology to inform and enhance operational and strategic management decisions.
- Use modern information technology to access relevant managerial and educational resources worldwide.
- Develop a comprehensive hazardous materials management program, including preincident planning, onsite emergency response, and postincident analysis and investigation.
- Apply skills in analysis and evaluation to complete firerisk assessment.
- Apply project management strategies to design disaster and fire-defense planning.
- Apply design principles to detect, control, and suppress fires in buildings and other structures, and use fire modeling to analyze fire propagation.
- Apply systems analysis to problems of incendiary-fire investigation and fire protection.
- Apply risk assessment to analyze pre- and postoccurrence factors.
- Apply skills in human resource management to deal with the psychological effects of emergency situations.
- Evaluate techniques, procedures, programs, and agencies involved in preventing fires.


## Specialization Requirements

A primary specialization in fire science requires the completion of 24 semester hours from courses in fire science. At least 15 of the 24 semester hours must be in courses numbered 300 or above.

## GERONTOLOGY

The gerontology specialization studies the social and psychological phenomena associated with aging. The curriculum is intended to support employment advancement in the care of the aging and in the management of senior housing.

## Scope

The gerontology specialization covers issues related to caring for an aging population, including long-term-care administration and the management of senior housing, with emphasis on applications to problems that arise in the workplace.

## G oals

The specialization in gerontology is designed to produce graduates with the skills and scholarly background necessary to care for an aging population. Study in this area will support entry into and advancement within professions that care for an aging population, foster use of technological resources for investigating social and psychological problems concerning aging, increase effectiveness of oral and written communication, and prepare graduates to meet professional standards of performance in long-term-care administration and the management of senior housing.

## 0 bjecti ves

The student who graduates with a specialization in gerontology will be able to

- Understand the physiological aspects of the aging process, including acute and chronic disease processes.
- Understand the psychological aspects of aging, including intelligence, memory, learning, personality, depression, and dementia.
- Understand how the family interacts and influences successful aging.
- Understand the need for new housing and living arrangements that can increase levels of independent living for the elderly in the community.
- Understand the legal, economic, and policy implications of an aging population at the federal, state, and local levels.
- Analyze the influence of social processes (such as family relations, income, retirement, housing, education, and social roles) on the aging process.
- Counter the myths associated with the aging process and provide positive examples of successful aging.
- Understand institutional and community-based systems for the care of older people and how these systems can affect the health and well-being of older individuals and their families.
- D evelop techniques for managing, marketing, and financing services to seniors.
- Cultivate cultural understanding of the role of older adults in their society.


## Specialization Requirements

A primary specialization in gerontology requires the completion of 24 semester hours from courses in gerontology. At least 15 of the 24 semester hours must be in courses numbered 300 or above. No more than six 1 -semester-hour courses may be applied to the primary area of specialization. At least 3 semester hours in statistics are required.

## GOVERNMENT AND POLITICS

The government and politics specialization studies governmental institutions and individuals and their social and political behavior. The specialization is intended to give students a background for careers in business, law, politics, administration, and public or private service. It also provides a foundation for students who intend to continue specialized studies in government and politics at the graduate level.

## Scope

The government and politics specialization includes studies in U.S. government and politics, comparative government, international relations, public policy and political behavior, political theory, public administration, public law, and state and local administration. The curriculum emphasizes the structure and functions of government and the concerns of authorities, and stresses systematic generalization based on empirical data and statistical analysis standard in all social sciences. It relies mainly on conceptual schemes from such disciplines as economics, sociology, psychology, and the physical and natural sciences.

## Goals

A specialization in government and politics produces graduates who can analyze different governments and the political implications of events and who possess the theoretical background and practical skills to succeed in a wide variety of public- and private-sector careers. Graduates frequently enter the public sector, working in fields such as personnel, management, budgeting, social services, and research. A specialization in government and politics also prepares students for careers in journalism and the foreign service. Some graduates go on to graduate school to prepare for careers in teaching or research or for specialized positions in government.

## 0 bjectives

The student who graduates with a specialization in government and politics will be able to

- Understand political science terminology and explanations.
- Understand a variety of approaches to the study of politics as well as important issues that motivate scholarship and shape political practice.
- Understand the structure and operations of the U.S. political system, the values that underlie it, and the capitalist context.
- Understand the scope of political science, government, political process, law, and international politics, and articulate informed judgments about political issues and events.
- Analyze political and social problems.
- Analyze contemporary international political problems.
- D emonstrate skills in using appropriate technology to gather, analyze, and disseminate political information.
- Exhibit oral and written communication skills to convey knowledge of political issues and policies.
- U se basic library and computer skills to conduct political research and solve policy issues and problems.


## Specialization Requirements

A primary specialization in government and politics requires the completion of 24 semester hours from courses in government and politics. At least 15 of the 24 semester hours must be in courses numbered 300 or above.

The following courses are required:
GVPT 100 Principles of Government and Politics
GVPT 170 American Government

Students also must take at least one course in three of the following fields of government: American government and politics, political theory, comparative government, public administration, international relations, public law, public policy, and political behavior. At least 3 semester hours in statistics are also required.

## HEALTH SERVICESMANAGEMENT

The specialization in health services management focuses on health service organizations and businesses (including hospitals, long-term-care facilities, nursing homes, assisted living residences, and health maintenance organizations), outpatient care, health service management systems, and facility management. Faculty members are current or former managers, administrators, policy analysts, planners, and legal professionals in health services.

## Scope

The health services management specialization combines the study of management concepts with knowledge of the health services industry. Topics include aspects of management and technical knowledge in public and private health services organizations, financial management, industry economics, research, planning, ethical issues, law, operations, human resources, marketing, strategic management, information systems, and total quality management.

## Goals

The specialization in health services management provides graduates a background in business with specialized knowledge in health services management. Students range from those with no prior college education to physicians and other advanced-degree health professionals. This specialization is appropriate for adults who work full-time and seek advancement to entry- or mid-level supervisory or management positions in public and private health services organizations.

Students can add to their background in health services through courses in other specializations, including accounting, business and management, computer and information science, economics, government and politics, hotel and restaurant management, information systems management, management, management studies, and technology and management.

## 0 bjectives

The student who graduates with a specialization in health services management will be able to

- Understand the scope and complexity of the health services industry.
- Understand the domestic and global dimensions and influences in the health services industry.
- Appreciate philosophies of ethics and social responsibility relevant to health services management.
- D evelop effective written and oral communications consistent with the business and professional environment of the health services industry.
- Apply current computer applications and technology to tasks in the health services industry.
- Think critically and constructively about issues and problems in health services management and perform research on them.
- Develop innovative leadership and team-management skills necessary for success in a diverse and changing workplace.
- Apply current knowledge and practices in accounting, finance, law, research, planning, marketing, and human resource management in the health services industry.
- Apply the marketing principles and concepts of product, place, price, and promotion to a health service operation.


## Specialization Requirements

A primary specialization in health services management requires the completion of 24 semester hours from courses in health services management. At least 15 of the 24 semester hours must be in courses numbered 300 or above. Since health services management often involves interacting with people, as well as analyzing information, students are urged to include in their studies certain courses beyond those required. The courses listed here, although not required, are recommended to help students develop marketable skills.

Courses in health services management may be applied to the primary specialization; courses in other managementrelated disciplines may be used in a secondary specialization or as supporting courses or electives.

## Computing

(For students with little or no computer coursework or experience)
CAPP 103 Introduction to M icrocomputer Software

IFSM 201 Introduction to Computer-Based Systems
(For students with prior coursework or experience in computing)
CAPP 340 Computer Applications in M anagement
In addition to one of the computing courses listed above, the following course is recommended for all students.
IFSM 300 Information Systems in Organizations*

## Statistics

HM GT 398C Research Issues and M ethods in Health Services M anagement or
BEH S 202 Introduction to Research M ethods and Statistics
BM GT 230 Business Statistics
or
M G M T 316 Business Analysis M ethods

## Accounting

ACCT 321 Cost Accounting
or
M GMT 301 Accounting for M anagers

## Economics

HMGT 325 H ealth Services Economics
ECON 201 Principles of Economics I
ECON 203 Principles of Economics II*

## Finance

| H M GT 322 | Health-Services Financial M anagement* <br> or |
| :--- | :--- |
| BM GT 340 | Business Finance |

## Law

| M GT | 416 | Legal Aspects of Health Services Administration* |
| :---: | :---: | :---: |
|  |  |  |
| GT | 378 | Legal Environment of Business or |
| BM GT | 380 | Business Law I |
|  |  | or |
| BM GT | 468 | Employ |

[^2]
## Management



## H IST O RY

The history specialization is concerned with the study of the past as manifested in historical topics, issues, trends, and events and as explored in a wide variety of time periods during the evolution of different cultures.

## Scope

The history curriculum is designed to build knowledge and skills in identifying historical significance, acquiring historical and intercultural perspective, and appreciating the major contributions of various events and individuals to human civilization. The curriculum includes courses that build critical-thinking and writing skills, foster understanding of past and present events, teach methods associated with modern historical research (including technology-based research), and explore special topics related to the study of history.

## Goals

The specialization in history produces graduates with skills in modern historical research and analysis and a chronological sense of the past, as well as factual knowledge of specific historical periods. Students demonstrate an ability to adopt a historical perspective and an appreciation of U.S. history and the histories of other peoples and cultures that will enhance multicultural understanding in the modern workplace. These skills and knowledge prepare students for careers in education, law, government, writing and research, public relations, business, and management.

## 0 bjecti ves

The student who graduates with a specialization in history will be able to

- Understand historiography and historical methods and appreciate how history has been written and interpreted over recorded time.
- Understand that he or she is uniquely affected by the U.S. historical experience.
- Demonstrate a chronological sense of the diverse peoples, events, and cultures that have determined human civilization.
- Think and read critically and conduct research that includes identifying, evaluating, and presenting with integrity the primary and secondary sources of historical information.
- Demonstrate awareness of ethical and social issues associated with writing and interpreting history.
- H ave an increased awareness of current events and demonstrate the ability to assess these events from a historical perspective.
- Use research opportunities as a means of developing and refining technological skills.
- Write cogent, documented, historical papers that exhibit interpretative skill as well as factual knowledge.


## Specialization Requirements

A primary specialization in history (for the B.A. only) requires the completion of 24 semester hours from courses in history. At least 15 of the 24 semester hours must be in courses numbered 300 or above. The courses required for a specialization are listed below.

Students must take a survey sequence (usually two courses, totaling 6 credits) from among the following:
HIST 110/111 The Ancient World/T he M edieval W orld
H IST 112/113 The Rise of the West: 1500 to 1789/M odern Europe: 1789 to the Present
HIST 141/142 Western Civilization I/II**
HIST 156/157 History of the U nited States to 1865/H istory of the United States Since 1865**
HIST 250/251 Latin American H istory I/II
HIST 284/285 East Asian Civilization I/II
H IST 360/361 America in the Colonial Era: 1600 to 1763/America in the Revolutionary Era: 1763 to 1815
HIST 362/363 Ante-Bellum America: 1815 to 1861/Civil War and the New Industrial Society in the United States: 1860 to 1900
HIST 364/365 Emergence of M odern America: 1900 to 1945/Recent America: 1945 to the Present
HIST 390/391 MiddleEast I/II

[^3]| HIST 463/464 |  | History of the OId South/H istory of the New South |
| :---: | :---: | :---: |
| HIST 482/483 |  | History of Japan to $1800 /$ H istory of Japan Since 1800 |
| Students must also take one 3-credit course related to the American experience from among the following: |  |  |
| HIST | 156 | History of the U nited States to 1865* |
| HIST | 157 | History of the U nited States Since 1865* |
| HIST | 211 | Women in America Since 1880 |
| HIST | 226 | The United States in World Affairs |
| HIST | 265 | Social and Cultural History of M odern America |
| HIST | 275 | Law and Constitutionalism in American History |
| HIST | 306 | History of Religion in America |
| HIST | 360 | America in the Colonial Era: 1600 to 1763 |
| HIST | 361 | America in the Revolutionary Era: 1763 to 1815 |
| HIST | 362 | AnteBellum America: 1815 to 1861 |
| HIST | 363 | Civil War and the New Industrial Society in the United States: 1860 to 1900 |
| HIST | 364 | Emergence of M odern America: 1900 to 1945 |
| HIST | 365 | Recent America: 1945 to the Present |
| HIST | 451 | Economic History of the U nited States Since 1865 |
| HIST | 452 | Diplomatic H istory of the United States to 1914 |
| HIST | 453 | Diplomatic History of the United States Since 1914 |
| HIST | 455 | Constitutional History of the United States Since 1860 |
| HIST | 459 | Society in America: Historical Topics |
| HIST | 461 | Blacks in American Life: 1865 to the Present |
| HIST | 462 | The Civil War |

N ote that some courses satisfy both the requirement for a survey sequence and the requirement for a course in American experience. H owever, students should be aware that such courses do not fulfill the general education require ment for international perspective coursework.

## HOTELAND RESTAURANT MANAGEMENT

Beginning fall 1999, the hotel and restaurant management specialization is being absorbed into the business and management specialization, with limited course offerings available. The specialization will be discontinued by fall 2001. To complete a primary specialization in hotel and restaurant management in the time remaining, students should already have completed at least 12 semester hours of required coursework in the specialization. If all coursework for the primary specialization is not completed by the end of spring 2001, credit earned in hotel and restaurant management may be applied toward a primary specialization in either business and management or management studies. All requirements of the new specialization must then be met. Students are urged to consult their team counselor for further information on courses and options.

The hotel and restaurant management specialization studies a variety of service-related hospitality operations, including hotels, resorts, restaurants, food and beverage services, leisure services, hospitality management systems, and facility management.

## Scope

Courses in hotel and restaurant management provide experiential learning, development of analytical skills, technical knowledge, and contacts needed to succeed in a rapidly changing professional area. C ourses cover aspects of management and technical knowledge used in hotels, restaurants, and leisure services, including front-office management, accounting, financial planning, operations, marketing, and human resource management. H ighlights of this specialization include a curriculum that is oriented toward management and customer service and designed for anyone interested in the hospitality industry, a faculty with both teaching and professional hospitality expertise, and courses that are appropriate for adult students who have experience in this fast-growing field and who seek opportunities for advancement.

## G oals

The hotel and restaurant management specialization provides graduates a background in business with specialized knowledge in hotel and restaurant management. Students specializing in hotel and restaurant management can choose from career opportunities in large corporations as well as entrepreneurial ventures. Students can add to their hospitality credentials with professionally oriented courses in other specializations, including accounting, business and management, computer and information science, economics, government and

[^4]politics, health services management, information systems management, management, management studies, and technology and management.

## 0 bjectives

The student who graduates with a specialization in hotel and restaurant management will be able to

- Understand the scope and complexity of the hospitality industry.
- Understand the domestic and global dimensions of and influences on the hospitality industry.
- D evelop effective written and oral communications consistent with the business and professional environment of the hospitality industry.
- Apply current computer applications and technology in the hospitality industry.
- Perform research on hospitality management issues and problems.
- Apply philosophies of ethics and social responsibility relevant to hospitality management.
- D evelop innovative leadership and team-management skills necessary for success in a diverse and changing workplace.
- Apply current knowledge and practices in accounting, finance, law, food and beverage control, marketing, and human resource management in the hospitality industry.


## Specialization Requirements

A primary specialization in hotel and restaurant management requires the completion of 24 semester hours from courses in hotel and restaurant management. At least 15 of the 24 semester hours must be in courses numbered 300 or above.

C ourses in the subject areas listed below are recommended, although not required. C ourses in other management-related disciplines may be used in a secondary specialization or as supporting courses or electives.

## Computing

(For students with little or no computer coursework or experience)
CAPP 103 Introduction to M icrocomputer Software or
IFSM 201 Introduction to Computer-Based Systems
(For students with prior coursework or experience in computing)
CAPP 340 Computer Applications in M anagement
In addition to one of the computing courses listed above, the following course is recommended for all students:
IFSM 300 Information Systems in O rganizations*

## Statistics

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BEHS 202
BMGT 230
M G MT 316 Business Analysis M ethods
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## Accounting and Finance

ACCT 321 Cost Accounting
M GMT $301 \quad \begin{aligned} & \text { or Accounting for M anagers }\end{aligned}$
ACCT 426 Advanced Cost Accounting
BM GT 340 Business Finance

## Economics

ECON 201 Principles of Economics।
ECON 203 Principles of Economics II*

## Law

BM GT 378 Legal Environment of Business or
BM GT 380 Business Law I
BM GT 468 Employment Law for Business

| M anagement |  |
| :--- | :--- |
| BM GT 360 | Human Resource M anagement <br> or <br> M anagement and Organization Theory |
| BM GT 364 | or <br> Leadership and M anagement in an Age <br> of D iversity |
| M G T 300 | or |
| TM GT 302 anagement: Perspectives, Process, Productivity |  |
| TM GT 360 | or <br> Human Resource M anagement |
| BM GT 464 | Organizational Behavior <br> Business Policy and Strategic M anagement |

[^5]
## HUMANITIES

The humanities specialization studies human thought and culture, including philosophy, the arts, literature, language, and religion. The humanities specialization provides a broad perspective on human behavior, morality, and spirituality, and focuses on the social, cultural, and aesthetic values of history, politics, religion, and philosophy. This interdisciplinary specialization encourages thinking across traditional disciplinary lines.

## Scope

The humanities curriculum includes studies in global humanities; religion; art appreciation and art history; philosophy; history; the U.S. C onstitution; personal, business, and professional ethics; myth and culture; literature; and women's history.

## G oals

A specialization in the humanities provides graduates with an educational foundation in the humanities and liberal arts and with skills of writing, reasoning, and critical judgment. G raduates in the humanities specialization find career opportunities in education, religion, literature, government, writing and research, business administration, management, and law.

## 0 bjectives

The student who graduates with a specialization in the humanities will be able to

- Understand and appreciate forms of human expression and compare varieties of expression across cultural boundaries.
- Analyze human expression from an interdisciplinary perspective.
- Demonstrate the relationship between human expression and the societies and the values that produced it.
- Apply critical reasoning, judgment, and choice.
- Write well and communicate critically and clearly.
- Use computers for communication and research.


## Specialization Requirements

A primary specialization in the humanities (for the B.A. only) requires the completion of 24 semester hours from courses in the humanities. At least 15 of the 24 semester hours must be in courses numbered 300 or above.

At least one course must be taken in each of the following five focal areas. A course listed under two or more categories may be used to fulfill only one requirement. Special topics and independent-study courses can be used to fill a particular focal area only upon approval.

## American Cultural History

HUMN 119
HUMN 120
HUMN 211
HUMN 245
HUMN 280
HUMN 340

HUMN 351
HUMN 364
HUMN 366

HUMN 375
HUMN 436
HUMN 447

American Adventure
America in Perspective
The Impact of Music on Life
Political and Social Philosophy
This C onstitution: A H istory
W hile Soldiers Fought: War and American Society
$M$ yth and Culture
20th-C entury African American Literature
Legacies: A History of Women and the Family in America to 1870

Social History of Washington, D.C.
Jazz: Then and Now
Philosophy of Law

## World/Comparative Cultural History

HUMN 110 Introduction to the Theatre
HUMN 125 Introduction to Philosophy
HUMN 130 Survey of M usic Literature
HUMN 236 Philosophy of Religion
HUMN 245 Political and Social Philosophy
HUM N 301 Crossing Cultures: World Views in the H umanities

HUMN 307 Asian Philosophy
HUMN 308 Modern Philosophy
HUMN 350 The Religious Quest
HUMN 351 Myth and Culture
HUMN 448 The M usical Symphony

## Technology and Scientific D iscovery

| HUMN 126 | Cosmos |
| :--- | :--- |
| HUMN 336 | Ideas Shaping the 21st Century |
| HUMN 342 | Moral Problems in M edicine |
| HUMN 360 | Global Environmental Change |
| BEHS 310 | Rr |
| Race to Save the Planet |  |
| HUMN 385 | Philosophy and Computers |

## Arts and Literature

HUMN 110 Introduction to the Theatre
HUMN 130 Survey of M usic Literature

Music Fundamentals

HUMN 340 While Soldiers Fought: War and American Society
HUMN 351 M yth and Culture
HUMN 364 20th-Century African American Literature: The Fictional Vision
HUMN 375
Social History of Washington, D.C.
HUMN 436
Jazz: Then and Now
HUMN 448 The Musical Symphony

## Philosophy and Religion

HUMN 125 Introduction to Philosophy
HUMN 141 Contemporary M oral Issues
HUMN 170 Introduction to Logic
HUM N 173 Logic and the English Language
HUMN 236 Philosophy of Religion
HUMN 245 Political and Social Philosophy
HUMN 300 M odern M oral Choices
HUMN 307 Asian Philosophy
HUMN 308 M odern Philosophy
HUMN 310 Business and Professional Ethics
HUMN 340 While Soldiers Fought: War and American Society
HUMN 342 M oral Problems in M edicine
HUMN 343 Sexual M orality
HUMN 345 Making Decisions
HUMN 350 TheReligious Quest
HUMN 351 Myth and Culture
HUMN 385 Philosophy and Computers
HUMN 447 Philosophy of Law

## INFORMATION SYSTEMSMANAGEMENT

The information systems management specialization focuses on designing, implementing, and evaluating information systems that assist the public and private sectors in designing, producing, and maintaining productive operating environments.

## Scope

The information systems management specialization provides a technical and managerial foundation for information systems professionals. It provides management-oriented, computer information system coursework, as opposed to
computer-oriented management coursework. C ourses are designed to develop a conceptual framework in systems engineering, management of information systems, database architecture, systems analysis and design, and issues relating to workplace productivity such as human factors, telecommunications, and ethics.

Students take core courses in systems analysis and relational databases to build a general foundation and in-depth knowledge in advanced databases to focus their careers as information systems or database systems managers. Students may also take courses in project management, information engineering, and resource management to focus their career paths. Elective courses offer deeper understanding of computer networks and network management or complement coursework in business and management, government and politics, or health services management.

## G oals

The information systems management specialization produces graduates with the ability to conceptualize and manage the design and implementation of high-quality information systems. They must be able to communicate effectively-in speaking and in writing- the issues, problems, and recommendations involved in the management of information systems, and they must understand the role of information systems within a global context. They must also be able to perceive the historical and future implications of computing in an ever-changing environment and make informed choices when managing technological growth in their organizations.

## 0 bj ectives

The student who graduates with a specialization in information systems management will be able to

- Be aware of ethical issues in the areas of information systems, work productivity, and human factors.
- Apply appropriate problem-solving methodologies to the analysis and solution of problems.
- Apply standard systems practices to the planning, imple mentation, management, and evaluation of information systems.
- Communicate effectively using oral, written, and multimedia techniques.
- $M$ anage change in the dynamic and global environments of automated systems.
- Use technology to research information needed to produce informed decisions for organizations.
- Distinguish relationships between programming languages and information systems.
- D evelop skills in system analysis appropriate to the management of information system projects.
- D evelop skills in the design, creation, maintenance, and reporting functions of database systems and database systems management.
- Use a systems approach to select hardware and software for an organization.


## Specialization Requirements

A primary specialization in information systems management requires the completion of 24 semester hours from courses in information systems management. At least 15 of the 24 semester hours must be in courses numbered 300 or above. IFSM 201 Introduction to Computer-Based Systems (or its equivalent) is a prerequisite but is not counted in the 24 credits required for the primary specialization. The courses required for a specialization are listed below.

The following courses are required:

IFSM 296 | CO BOL Programming I |
| :--- |
| or |

3 credits in another high-level programming language
IFSM 300 Information Systems in O rganizations
IFSM 310 Software and H ardware C oncepts
The information systems management specialization also requires at least one upper-level course taken from each of the following three areas:

## D atabase M anagement

| IFSM | 410 | D atabase Program D evelopment |
| :--- | :--- | :--- |
| IFSM | 411 | SQ L |
| IFSM | 420 | Advanced D atabase C oncepts |

## Systems Analysis

| IFSM | 460 | Systems Analysis |
| :--- | :--- | :--- |
| IFSM | 465 | Systems D esign |
| IFSM | 470 | CASE: Technologies, M ethodologies, and |
|  |  | M anagement |

## Workplace Resource M anagement

| IFSM | 302 | Workplace Productivity |
| :--- | :--- | :--- |
| IFSM | 303 | H uman Factors in Information Systems |
| IFSM | 304 | Ethics in the Information Age |
| IFSM | 425 | Decision Support and Expert Systems |
| IFSM | 430 | Information Systems and Security |
| IFSM | 438 | Project M anagement |
| IFSM | 450 | Telecommunication Systems in M anagement |

The remaining 6 semester hours, consisting of elective courses in information systems management, should be related to career goals or personal interests.

Students must take M ATH 107 Selected Topics in College Algebra or a higher-numbered mathematics course from mathematics sequence I or II (listed on p. 141).

STAT 100 Elementary Statistics and Probability (or its equivalent) is also required.

## MANAGEMENT

Beginning fall 1999, the management specialization is being absorbed into the business and management specialization, with limited course offerings available. The specialization will be discontinued by fall 2001. Students are urged not to select management as a primary area of specialization if they have not already completed at least 12 credits in the specialization. If all coursework for the primary specialization is not completed by the end of summer 2001, credit earned in management may be applied toward a primary specialization in either business and management or management studies. All requirements of the new specialization must then be met. Students are urged to consult their team counselor for further information on courses and options.

The management specialization focuses on complexities in the workplace environment and the organization, including issues in leadership and management, managing diversity, team building, globalization of business, oral and written communication, computerization and use of information, ethics and social responsibility, and strategic management. Study within this specialization concentrates on developing policies and procedures, planning, budgeting, organizing, staffing, controlling, research, quantitative analysis, and problem solving.

## Scope

A specialization in management stresses the integration of contemporary management theory and practice. C ourses are particularly appropriate for adult students who want to emphasize the manager's perspective. Topics include leadership, the global nature of business, managing diversity, probIem solving and critical thinking, communication skills, ethics in business, and current issues. The specialization also includes studies in managerial accounting, quantitative analysis and statistics, entrepreneurial management, organizational development, procurement, marketing, operations management, process reengineering, total quality management, and strategic management.

## G oals

A specialization in management provides graduates with a foundation for management-related careers in business, not-for-profit organizations, and the public sector. Opportunities for graduates include careers as managers in business, government, and other organizations.

Related specializations include accounting, business and management, computer and information science, economics, government and politics, health services management, hotel and restaurant management, information systems management, management studies, and technology and management.

## O bjectives

The student who graduates with a specialization in management will be able to

- Understand the domestic and global dimensions of and influences on business and management.
- Understand philosophies of ethics and social responsibility relevant to business and management.
- Develop effective written and oral communications that are consistent with the business and professional environment.
- Use current computer applications and technology in the workplace.
- Apply key concepts and theories to business and management.
- Perform research in business and management.
- D evelop innovative leadership and team-management skills necessary for success in a diverse and changing workplace.


## Specialization Requirements

A primary specialization in management requires the completion of 24 semester hours from courses in management. At least 15 of the 24 semester hours must be in courses numbered 300 or above. The courses required for a specialization as listed below.

The following courses are required:

| M GMT 300 | Leadership and $M$ anagement in an Age of Diversity |
| :---: | :---: |
| M GMT 301 | Accounting for $M$ anagers or |
| ACCT 221 | Priniciples of Accounting II |
| M GMT 305 | The Global Business Environment or |
| BGMT 392 | International Business M anagement |
| MGMT 316 | Business Analysis M ethods or |
| BGMT 230 | Business Statistics |
| MGMT 410 | M arketing for M anagers or |
| BGMT 350 | M arketing Principles and Organization |
| M GMT 495 | M anagerial Planning and Competitive Strategies or |
| BGMT 495 | Business Policies and Strategic M anagement |

Since management often involves interacting with people, as well as analyzing information, students are urged to include in their studies certain courses beyond those required. The following courses, although not required, are recommended to help students develop marketable skills.

Courses in management may be applied to the primary specialization; courses in other management-related disciplines may be used in a secondary specialization or as supporting courses or electives.

## Computing

(For students with little or no computer coursework or experience)

| CAPP | 103 | Introduction to M icrocomputer Software |
| :--- | :--- | :--- |
| IFSM | 201 | orIntroduction to Computer-Based Systems |

(For students with prior coursework or experience in computing)
CAPP 340 Computer Applications in M anagement
In addition to one of the computing courses listed above, the following course is recommended for all students.
IFSM 300 Information Systems in Organizations*

## Accounting

| ACCT | 321 | Cost Accounting |
| :--- | :--- | :--- |
| ACCT | 426 | or Advanced Cost Accounting |
| BM GT | 340 | Business Finance* |

## Economics

ECON 201 Principles of Economics
ECON 203 Principles of Economics II*

| Law |  |  |
| :--- | :--- | :--- |
| BM GT 380 | Business Law I* <br> or |  |
| BM GT 462 | Employment Law for Business |  |
| BM GT | 480 | or <br> Legal Environment of Business |

## M anagement

| BM GT | 360 | H uman Resource M anagement or |
| :---: | :---: | :---: |
| BM GT | 395 | Customer Service $M$ anagement |
| BM GT | 464 | Organizational Behavior or |
| IFSM | 438 | Project $M$ anagement or |
| TMGT | 310 | Problem Solving |
| TM GT | 360 | H uman Resource M anagement or |
| TM GT | 430 | Project M anagement |
| TM GT | 480 | or ${ }_{\text {oxploring the }}$ |

## MANAGEMENT STUDIES

The management studies specialization provides a multidisciplinary approach to management and problem solving. Most organizations (whether they are large corporations, small businesses, government agencies, or not-for-profit entities) use concepts from the study of management. Within an organizational setting, management deals with people, organizational structure, and complexities in the environment, including policies and procedures, planning, budgeting, organizing, staffing, controlling, research, analysis, and problem solving.

## Scope

The management studies specialization is based on the premise that many business, government, public-service, and technical environments require a knowledge of management principles that may best be gained from more than one discipline. W hile no courses in management studies are offered in the M aryland area, the European and Asian Divisions offer several courses within the specialization.
Both in M aryland and overseas, students specializing in management studies may choose from a wide variety of approved management-related courses from other disciplines, including accounting, business and management, economics, health services management, hotel and restaurant management, information systems management, management, and technology and management. Thus, study can be tailored to the student's needs.

## G oals

A specialization in management studies provides graduates with a multidisciplinary focus on analysis and decision making across a wide spectrum of management activities. O pportunities for graduates include careers as managers in business, government, and other organizations.

## 0 bjectives

The student who graduates with a specialization in management studies will be able to

- D evelop effective written and oral communications consistent with the business and professional environment.
- Understand the domestic and global dimensions of and influences on business and management.
- Understand and apply current computer applications and technology in the workplace.
- Understand and apply key concepts and theories to business and management.
- Think critically and constructively and perform research in business and management.
- Appreciate philosophies of ethics and social responsibility relevant to business and management.
- D evelop innovative leadership and team-management skills necessary for success in a diverse and changing workplace.


## Specialization Requirements

A primary specialization in management studies requires the completion of 24 semester hours from courses in management studies or other approved management-related disciplines. At least 15 of the 24 semester hours must be in courses numbered 300 or above.
One of the following courses in management and leadership is recommended for students seeking a specialization:

BM GT 364 M anagement and O rganization Theory M GMT 300 Leadership and M anagement in an Age of Diversity
or
TM GT 302 M anagement: Perspectives, Process, Productivity
O ne or more upper-level courses in computing, statistics, cost accounting, business finance, business law, and economics are also recommended to provide a broad perspective on management.

## M ATHEMATICS

The mathematics specialization focuses on analyzing, formulating, and solving problems of a mathematical and statistical nature that arise in business, government, and industry. The applications of mathematics form an important component of other specializations, many of which require competence in areas of pure and applied mathematics. Mathematical knowledge also helps in interpreting data and organizing information in many areas, including computing and business management.

## Scope

The application of mathematics is an important component of the mathematics curriculum. This specialization prepares students to obtain critical mathematical reasoning skills and the mathematical knowledge needed in areas such as business, computer programming, and operating system and database applications.

## G oals

The mathematics specialization produces graduates who have an understanding of the nature and importance of mathematics in the world and human endeavor and the ability to exhibit written and oral communication skills consistent with the mathematics and professional environment. Studies in mathematics also help adult learners become mathematically mature, expert problem solvers and reasoners with complex, technical materials. Graduates are prepared for careers in a wide variety of mathematical or statistical fields, including education, engineering, statistics, technical research, and actuarial work.

## 0 bjectives

The student who graduates with a specialization in mathematics will be able to

- Understand and analyze problems that need mathematical analysis.
- Use appropriate tools and software in the formulation and generation of solutions to problems.
- D emonstrate knowledge of content in diverse areas of mathematics and related fields.
- Interpret real-world problems into mathematical models and demonstrate the application of mathematics in solving those problems.
- D emonstrate proficiency in written assignments and oral presentations.


## Specialization Requirements

A primary specialization in mathematics requires the completion of 24 semester hours from courses in mathematics. At least 15 of the 24 semester hours must be in courses numbered 300 or above.

The following courses are required for a mathematics specialization:

| M ATH | 140 | Calculus I |
| :--- | :--- | :--- |
| M ATH | 141 | Calculus II |
| M ATH 240 | Linear Algebra |  |
| M ATH 241 | Calculus III |  |
| M ATH 246 | Differential Equations |  |
| Some of the above courses may be taken as electives. |  |  |

Students are recommended to take at least two courses in pure mathematics and two courses in applied mathematics.

## Pure M athematics

| M ATH | 301 | Concepts of Real Analysis I |
| :--- | :--- | :--- |
| M ATH | 302 | Concepts of Real Analysis II |
| M ATH | 402 | Algebraic Structure |
| M ATH | 432 | Point Set Topology |
| M ATH | 436 | M odern Geometry |
| M ATH | 463 | Complex Analysis |

## Applied M athematics

| M ATH 370 | Actuarial Science |
| :--- | :--- | :--- |
| M ATH 381 | O perations Research |
| M ATH 390 | M athematics of Communication |
| M ATH 450 | Logic for Computer Science |
| M ATH 466 | Numerical Analysis |
| M ATH 475 | Combinatorics and Graph T heory |

## MICROBIOLOGY

The microbiology specialization provides a preprofessional, laboratory-based approach to the study of bacteria and viruses with applications to public health for students with an appropriate background in the sciences. This subject is central to careers in biotechnology and public health and is a useful premedical or preveterinary specialization.

## Scope

The microbiology specialization is grounded in the study of biology as it appears in the physiology and ecology of microorganisms, including virology, immunology, and epidemiology.

## G oals

Students who specialize in microbiology will be prepared to work in fields related to biotechnology, including manufacture of drugs and food, public health, animal care, and agriculture. They will develop skills necessary to work as laboratory assistants and technicians or to embark on more advanced study in medicine and research.

## 0 bjectives

The student who graduates with a specialization in microbiology will be able to

- Understand basic taxonomy, structure, physiology, and ecology of bacteria, fungi, and viruses.
- Understand defenses provided by the immune system against infection.
- Perform standard laboratory routines employed in medical, industrial, and research work with microorganisms.
- Apply basic knowledge of microorganisms to problems encountered in medicine, public health, and biotechnology.


## Specialization Requirements

Before beginning coursew ork in microbiology, students should complete laboratory courses in biology, general chemistry, and college algebra, such as the following:

| BIOL | 105 | Principles of Biology I |
| :--- | :--- | :--- |
| CHEM | 103 | General Chemistry I |
| CHEM | 113 | General Chemistry II |
| M ATH | 107 | Selected Topics in College Algebra |
| M ATH | 115 | or |
| PreCalculus |  |  |

The following courses are also recommended:
CHEM 233 Organic Chemistry I
CHEM 243 Organic C hemistry II

## PARALEGAL STUDIES

The paralegal studies specialization focuses on those legal concepts, procedures, and skills that are used in a wide variety of legal environments. Paralegal studies prepares students for challenging and responsible work in the legal environment. Paralegals work with attorneys, performing tasks that require substantive and practical legal knowledge. Career opportunities include positions in law firms, government agencies, legal services offices, corporations, professional and trade associations, banks, real estate organizations, publishing companies, and other public- and private-sector businesses.

## Scope

The paralegal studies specialization addresses the organization, functions, and processes of institutions in the U.S. legal system, roles and issues in the paralegal field, legal ethics, and selected specialty areas. The curriculum emphasizes important skills, including legal analysis, communication, legal research, computer competence, legal drafting, investigation, organization, and specialized legal skills.

## G oals

Students who specialize in paralegal studies will be prepared to participate as efficient and effective members of legal teams. They will be able to apply their acquired knowledge and skills in a wide variety of legal settings.

## 0 bjectives

The student who graduates with a specialization or completes a document in paralegal studies will be able to

- Explain the basic constitutional principles of the U.S. legal system.
- Explain, both in speaking and in writing, legal topics and analyses.
- Discuss issues relevant to the paralegal profession.
- Recognize and discuss ethical considerations involved in the practice of law.
- Explain basic concepts in selected specialty areas of legal practice.
- Describe basic procedures in litigation.
- Identify ways that computers can assist in the legal environment.
- Analyze facts, law, and legal issues.
- Perform book-based and computer-assisted legal research tasks.
- D raft writings and perform other tasks typically assigned to paralegals in selected specialty areas of legal practice.
- U se selected software to accomplish tasks in the legal environment.


## Specialization Requirements

A primary specialization in paralegal studies requires the completion of PLGL 101 Introduction to Law for the Paralegal plus an additional 24 semester hours from courses in paral egal studies. At least 15 of the 24 semester hours must be in courses numbered 300 or above. No more than six 1-semester-hour courses may be applied to the primary area of specialization. The courses required for a specialization are listed below.

The following three courses are required:

| PLGL | 200 | Techniques of Legal Research |
| :--- | :--- | :--- |
| PLGL | 201 | Legal Writing |
| PLGL | 204 | Legal Ethics/Law Office Systems |

## D ocument Requirements

A paralegal studies document requires ten paralegal studies courses, at least eight of which must be taken at UMUC, and 30 semester hours of additional college coursework. The 30 semester hours must include 18 semester hours of general education coursework in areas such as communications, humanities, science, and mathematics. Students who have not already earned an associate's or bachelor's degree must take EN GL 101 Introduction to Writing.
The following four courses are required:

| PLGL | 101 | Introduction to Law for the Paralegal |
| :--- | :--- | :--- |
| PLGL | 200 | Techniques of Legal Research |
| PLGL | 201 | Legal Writing |
| PLGL | 204 | Legal Ethics/Law Office Systems |

## Research Support

Students enrolled in paralegal courses may need to use LEXIS/N EXIS, a computer-assisted research system to which UM UC provides access. In addition, the UM UC Office of Information and Library Services can help paralegal students locate legal research sources.

## PSYCHOLOGY

The psychology specialization follows an interdisciplinary curriculum that investigates the nature of mind and behavior. A specialization in psychology leads to successful careers in clinical treatment programs, human resource management, organizational consulting, schooling and education programs, basic research, and teaching, and to graduate study.

## Scope

The psychology specialization addresses a broad range of issues from many disciplines, including biology, economics, linguistics, medicine, pharmacology, philosophy, and sociology. Psychology studies support a wide range of professionsfrom nurse to engineer to homemaker- and varied perspectives in the workplace, including those of manager, technician, and entrepreneur. The psychology curriculum provides graduates with an understanding of a broad spectrum of areas, including the biological basis of behavior, perception, memory and cognition, the influence of environmental and social forces on the individual, personality, life-span development and adjustment, research methods, and statistical analysis.

## G oals

The psychology specialization produces graduates with a knowledge base of theory and research in the psychological sciences and the ability to apply the principles of psychology for the improvement of human welfare. The specialization applies psychological knowledge to nonscientific fields and the workplace, and promotes multicultural and multinational awareness. It also introduces students to the basis of collaborative and professional relationships within psychology, identifies the foundations and delivery systems of the mental health profession, and prepares students for graduate study in psychology.

## 0 bjectives

The student who graduates with a specialization in psychology will be able to

- Recognize how psychology aids job promotability and improves interpersonal relationships.
- Examine psychology in a wide context of interdisciplinary approaches, covering political overviews, cultural diversity, and timely issues.
- Demonstrate how critical observation, experimentation, and empirical reasoning are cornerstones of psychology.
- Apply theory and research in psychology to practical situations and problems.
- Communicate psychological concepts in oral and written form.
- Conduct scientific research projects, including accessing technical information, writing papers and presenting research, and using computers in psychology.


## Specialization Requirements

A primary specialization in psychology requires the completion of 24 semester hours from courses in psychology. At least 15 of the 24 semester hours must be in courses numbered 300 or above. No more than six 1-semester-hour courses may be applied to the primary area of specialization. PSYC 100 Introduction to Psychology is a prerequisite for upper-level selections. Additionally, students are required to complete PSYC 200 Statistical M ethods in Psychology. This and PSYC 305 Experimental M ethods in Psychology should be taken prior to upper-level course selection to maximize learning potential in those courses.

Students interested in graduate or professional education beyond the bachelor's degree should take the following recommended core courses.

| PSYC | 221 | Social Psychology |
| :--- | :--- | :--- |
| PSYC | 301 | Biological Basis of Behavior |
| PSYC | 305 | Experimental M ethods in Psychology |
| PSYC | 310 | Perception |
| PSYC | 341 | Introduction to M emory and Cognition |
| PSYC | 353 | Adult Psychology |
| PSYC | 355 | Child Psychology |
| PSYC | 415 | History of Psychology |
| PSYC | 435 | Personality Theories |

## Themes

In addition to the recommended core course selection, students should consider which theme they wish their psychology specialization to address. Typically, courses fall into three groups according to themes in psychology: psychology as a natural science, psychology as a social science, or psychology as a clinical science. Ultimately, the combination of the students' own academic objectives and criteria for future professional or graduate work should determine which theme is most recommended.

## Psychology as a Natural Science

As a natural science, psychology focuses on biological and cognitive foundations of psychological research. For example, students seeking classes that stress physiology and the thought process will take more courses emphasizing the natural science aspects of psychology, such as the following:
PSYC 301 Biological Basis of Behavior
PSYC 305 Experimental M ethods in Psychology
PSYC 307A Introduction to Neuropsychology
PSYC 310 Perception
PSYC
332 Psychology of Human Sexuality
PSYC
341

| PSYC | 402 | Physiological Psychology |
| :--- | :--- | :--- |
| PSYC | 403 | Animal Behavior |
| PSYC | 442 | Psychology of Language |
| PSYC | 443 | Thinking and Problem Solving |
| PSYC | 466 | Environmental and Ecological Psychology |

## Psychology as a Social Science

As a social science, psychology focuses on social and cultural foundations of psychological research. For example, students seeking classes that stress life-span development and organi-
zational behavior will take more courses emphasizing the
social science aspects of psychology, such as the following:
PSYC 221 Social Psychology
PSYC 305 Experimental M ethods in Psychology
PSYC 334 Psychology of Interpersonal Relationships
PSYC 337 Community Psychology
PSYC 345 Group Dynamics
PSYC 354 Cross-Cultural Psychology
PSYC 355 Child Psychology
PSYC 356 Psychology of Adolescence
PSYC 357 Psychology of Adulthood and Aging
PSYC 361 Survey of Industrial and O rganizational Psychology
PSYC 405 Applied Behavior Analysis
PSYC 415 H istory of Psychology
PSYC 424 Communication and Persuasion
PSYC 435 Personality Theories
PSYC 464 Psychology of Leaders in W ork O rganizations

## Psychology as a Clinical Science

As a clinical science, psychology focuses on individual and therapeutic foundations of psychological research. For example, students seeking classes that stress personality adjustment and counseling will take more courses emphasizing the clinical science aspects of psychology, such as the following:
PSYC 235 Psychology of Adjustment
PSYC 305 Experimental M ethods in Psychology
PSYC 332 Psychology of H uman Sexuality
PSYC 334 Psychology of Interpersonal Relationships
PSYC 336 Psychology of Women
PSYC 337 Community Psychology
PSYC 353 Adult Psychopathology
PSYC 354 Cross-Cultural Psychology
PSYC 405 Applied Behavior Analysis

| PSYC | 432 | Introduction to Counseling Psychology |
| :--- | :--- | :--- |
| PSYC | 435 | Personality Theories |
| PSYC | 436 | Introduction to Clinical Psychology |
| PSYC | 451 | Principles of Psychological Testing |

## SOCIOLOGY

The sociology specialization is concerned with the study of societies and social organization. It includes the scientific study of institutions within society as well as social change and its implications for individuals.

## Scope

The sociology curriculum focuses on topics such as marriage and the family, deviance, demography, gender issues, racial minorities, and U.S. society, with special emphasis on problems that arise in the workplace.

## G oals

The special ization in sociology produces graduates who can apply sociological principles to the analysis of problems in the community and at work, especially in social services and education. The study of sociology fosters effective communication about human societies and stimulates quantitative thinking and logical inference in evaluating data related to society. The sociology curriculum also makes sources of information about social organization and change available through increased knowledge of technology.

## 0 bjectives

The student who graduates with a specialization in sociology will be able to

- Understand different perspectives through which human societies may be viewed.
- Discuss fluently a wide range of information arising from social investigation.
- Critically analyze evidence of social change and organization.
- Communicate effectively about society.


## Specialization Requirements

A primary specialization in sociology requires the completion of 24 semester hours from courses in sociology. At least 15 of the 24 semester hours must be in courses numbered 300 or above. A course in statistics is al so required for the sociology specialization.

## SO CIOLO G Y/ANTHROPOLOGY

The sociology/anthropology specialization studies societies and social organization around the world as outcomes of biological and cultural evolution. It includes the scientific study of institutions within society as well as social change and its implications for individuals. The curriculum supports work in social services and education.

## Scope

The sociology/anthropology specialization addresses topics such as marriage and the family, deviance, demography, gender, racial minorities, and U.S. society. It also focuses on anthropological areas such as archaeology, human evolution, linguistics, and ethnology. Problems that arise in the workplace receive special attention.

## G oals

The sociology/anthropology specialization produces graduates who can apply biological and cultural research to the analysis of global and cross-cultural problems, especially in social services and education. The specialization fosters effective communication about human societies and stimulates quantitative thinking and logical inference in evaluating data related to culture and society. It also applies sophisticated use of technological sources of information in focusing on sociological and anthropological issues.

## 0 bjectives

The student who graduates with a specialization in sociology/ anthropology will be able to

- Understand different perspectives through which human societies may be viewed.
- Critically analyze evidence of social and cultural change and organization.
- Communicate effectively about society and the development of the human species.


## Specialization Requirements

A primary specialization in sociology/anthropology requires the completion of 24 semester hours from courses in sociology and in anthropology. At least 15 of the 24 semester hours must be in courses numbered 300 or above. O nly 12 semester hours in anthropology may be applied to the primary specialization. A course in statistics is also required.

## TECHNOLOGYAND MANAGEMENT

Beginning fall 1999, the technology and management specialization is being absorbed into the business and management specialization as an emphasis, with limited course offerings available. The specialization will be discontinued by fall 2001. Students are urged not to select technology and management as a primary area of specialization if they have not already completed at least 12 credits in the specialization. If all coursework for the primary specialization is not completed by the end of summer 2001, credit earned in technology and management may be applied toward a primary specialization in business and management or management studies. All requirements of the new specialization must then be met. Students are urged to consult their team counselor for further information on courses and options.

The technology and management specialization is an interdisciplinary program that studies how executives manage and integrate people and technology to make their companies or agencies more productive, competitive, and profitable in today's global environment. This specialization is appropriate for managers seeking up-to-date knowledge, professional advancement, and senior leadership positions in private business, government agencies, nonprofit organizations, and the military. It also provides a solid foundation for those who plan to continue their education in business and technology management.

## Scope

Technology and management addresses a wide range of leadership and management principles, theories, and strategies used in modern business and government organizations. The program also explores the impact that technological innovations in the computer, environmental, health science, and telecommunication fields will have on world business and government.

## G oals

A major goal of the technology and management specialization is to develop graduates with the knowledge and understanding required for effective leadership and management in today's increasingly technological workplaces. A second goal is to develop graduates who can synthesize and apply qualitative and quantitative skills to the management of people and technology in manufacturing and service industries and government and nonprofit organizations.

## 0 bjectives

The student who graduates with a specialization in technology and management will be able to

- Write reports and make presentations of the quality expected by senior management.
- Explain the impact of technology on world society, global business, and political institutions.
- Use computer technology to inform and enhance strategic management decisions and project-management operations.
- Apply specific research designs to collecting and using data.
- Use modern information technology to access relevant managerial and educational resources on a worldwide basis.
- Apply analytical and evaluation skills to problem solving.
- Use policy analysis methods and techniques, including cost/benefit analysis and program evaluation.
- Apply systems analysis to organizational management.
- Employ systems analysis to calculate risk and construct scenarios of the future.
- Apply project-management strategies to system implementation.
- Integrate total quality management with corporate functions.
- Apply theories of management to analyze public- and privatesector policy decisions.
- Apply strategic planning strategies in the context of international business management and a global economy.


## Specialization Requirements

A primary specialization in technology and management requires the completion of 24 semester hours from courses in technology and management. At least 15 of the 24 semester hours must be in courses numbered 300 or above.


## Associate's Degrees and Certificates

## ASSOCIATE OF ARTS DEGREE

The curricula and courses listed below are available only to active-duty military personnel and certain others who conform to special stipulations.

## General Requirements

The Associate of Arts (A.A.) degree requires the completion of a minimum of 60 semester hours, at least 15 of which must be taken through UM UC. Before applying for this degree, students must have completed the general education requirements ( 30 semester hours). An additional 30 semester hours (defined below) are also required. A grade-point average of 2.0 or higher in all courses taken through UM UC is required.

## General Curriculum

The curriculum for the general A.A. degree requires 30 semester hours of courses related to the student's personal interests or career goals. Students must fulfill all prerequisites. Students who anticipate seeking a bachelor's degree should select courses that will advance that goal. Students must earn a grade of C or higher in all courses.

## Specific Curricula

The two specific curricula detailed below require a second group of 30 semester hours consisting of courses in one of two areas of emphasis and courses that are electives. Students who anticipate seeking a bachelor's degree after receiving an associate's degree should consult a counselor for help in selecting courses to advance that goal. Students must earn a grade of $C$ or higher in all courses.

## Criminal Justice

Requirements ( 30 semester hours)

1. At least 12 semester hours of courses related to criminal justice are required, 9 semester hours of which must be completed through UM UC. The following are examples of applicable courses:

CCJS 100 Introduction to Criminal Justice
CCJS 105 Introduction to Criminology
CCJS 230 Criminal Law in Action
CCJS 234 Criminal Procedure and Evidence
Courses in criminal justice and/or criminology (designated CCJS, CJU S, or CRIM ) numbered 300 to 499
2. The remaining 18 semester hours, consisting of elective courses, should be related to career goals or personal interests.

## M anagement

Requirements ( 30 semester hours)

1. At least 18 semester hours of management-related courses are required, at least 9 of which must be taken through UMUC.
2. The remaining 12 semester hours, consisting of elective courses, should be related to career goals or personal interests.

## CERTIFICATE PROGRAMS

The curricula for the four certificate programs are available only to active-duty military personnel and certain others who conform to special stipulations.

## General Requirements

UM UC offers programs that allow students to earn certificates in specific academic areas. Certificates are available in criminal justice, management, public administration, and state and local government.

The requirements common to all are as follows:

- A minimum of 30 semester hours completed.
- At least 15 semester hours taken through UM UC.
- A grade-point average of 2.0 or higher in all courses taken through UM UC.

Students interested in the programs should consult their counselor.

## Alternative $\mathbf{O}$ ptions for Earning Credit

## LEARNING GAINED THROUGH EXPERIENCE

Learning acquired outside the college classroom may be assessed for credit toward a degree at UM U C. There are two ways students can make use of life experience for possible college credit: Prior Learning and Cooperative Education. D etails on each method follow. Counselors can help in determining the best routes to use in fulfilling any academic plan.

## Prior Learning

Students may earn credit for what they have learned outside the classroom through two avenues: course-challenge examinations and EXCEL Through Experiential Learning. As many as 30 semester hours may be earned through a combination of course-challenge examinations and EXCEL. C redit earned may be used toward either a first or second bachelor's degree.

## C ourseC hallenge Examinations

UM UC credit can be earned for any traditional undergraduate course for which UM UC can prepare and administer a suitable examination (called a course-challenge examination). D egree-seeking students at U M U C who have satisfactorily completed at least 6 semester hours of UM U C work, have a cumulative gradepoint average of at least 2.0 in UM UC coursework, and have received an official evaluation may contact their resource team to begin the process. They then contact the Prior Learning office for an application. C redit may be used toward a first or second bachelor's degree.

Six-credit courses, writing courses, and programming courses, because of their extensive writing and programming requirements, may not be challenged by examination. Furthermore, credit by coursechallenge examination may not be given for courses for which a student registered previously.

M ore information on course-challenge examinations may be obtained by calling 301-985-7755.

## EXCEL Through Experiential Learning

EXCEL Through Experiential Learning is a unique way for students to gain academic credit for collegelevel learning acquired through employment, volunteer activities, political activities, or other noncollegiate experiences. Students document their previous learning in a prescribed manner, and faculty members evaluate the documentation for possible credit.

Required as part of EXCEL is enrollment in EXCL 301 Learning Analysis and Planning. In this 3-credit course, the student prepares a portfolio describing and documenting college-level learning gained from various experiences. Faculty members evaluate the portfolio to determine whether to award credits and how many should be awarded.

Although it is possible to earn up to 30 credits through EXCEL, the average award is between 15 and 18 credits. Experiential-learning credits are awarded for both upper- and lower-level courses. These credits are considered UM UC credit and may be used in a primary specialization, as long as they relate to the student's educational and career goals. H owever, only 15 semester hours of credit awarded may be applied to a student's primary specialization; any additional credits awarded are applied where appropriate in the student's program of study. Students should be aware that they are required to complete a minimum of 15 semester hours of graded coursework to satisfy the resident credit requirement. EXCL 301 and any awarded EXCEL credit cannot be used to satisfy this requirement. In addition, there is some coursework for which credit cannot be earned through the EXCEL program. Students should see a counselor.

The EXCL 301 course is graded on an S/D/F basis (explained on $p$. 164). If the quality of the work in the portfolio is worthy of a grade of $C$ or higher, a grade of $S$ is awarded and the portfolio is forwarded for credit evaluation.

Because credit earned as a result of portfolio evaluation earns the grade of $S$, and the grade of $S$ is not computed in the grade-point average, the grade from such credit is not applicable toward honors.

To be eligible, students must complete an EXCEL application and attend an orientation. Prior Learning orientations are available each month. Prospective students may call 301-9857755. Students should note that tuition and fees are subject to change.

## C ooperative Education

Cooperative Education (Co-op) extends education beyond the traditional classroom and into the workplace. By integrating career-related work opportunities and academic theory, students can earn upper-level credits toward a bachelor's degree. Credit is based on the successful completion of specific academic requirements and the new learning specified in a learning contract. Students can enroll in Co-op at any time during the year. A variety of course formats permits UM UC students, regardless of location, to participate in Cooperative Education.

To be eligible to apply to the program, a student must be seeking a degree from U M U C and be employed in a position directly related to that student's field of study. The position must offer an opportunity for significant new learning. Co-op positions may be paid or unpaid, part time or full time. For students pursuing a new position or a career change, the Co-op staff provides assistance in conducting a job search and locating
professional opportunities through the Job D evelopment program. Students may also earn Co-op credit if they recently started a new job, received a promotion, were assigned new responsibilities, or initiated new projects in a current position.

To apply, students must meet the following criteria:

- H ave completed 30 semester hours toward a degree, 6 of which must have been completed at UM UC.
- H ave completed at least 9 semester hours of credit in the specialization in which the student plans to gain Co-op experience.
- H ave a GPA of 2.5 or better at UMUC.
- H ave all transcripts showing prior credit on file at UMUC.
- H ave a curriculum evaluation prepared by a counselor and dated within the last three months.

D uring the 15 -week Co-op course, students are required to communicate with their faculty sponsor and complete six academic assignments, including the fulfillment of the objectives developed in a learning contract. Either 3 or 6 semester hours of upper-level credit may be earned during a 15 -week Co-op session. Students must work at tasks providing new learning at least 12 hours per week for 15 weeks to earn 3 credits, and at least 20 hours per week for 15 weeks to earn 6 credits. A letter grade is awarded for successful completion of the course. A maximum of 15 Co-op credits may be applied toward the completion of a first bachelor's degree and 9 semester hours toward a second bachelor's degree.

Credit for Co-op is charged at the current tuition rate; an administrative fee of $\$ 75$ is charged each time a student enrolls. Students who participate in the Job D evelopment program are charged a $\$ 75$ fee.

Approval and registration information is obtained from the C ooperative Education office. The office may be reached at 301-985-7780 or 800-283-6832, ext. 7780, by phone; 301-$985-7021$ by fax; or coop@info.umuc.edu via e-mail. Students may view the Web page at www.umuc.edu/coop.

## EXTERNAL SOURCES OF COLLEGE CREDIT

(Further details and regulations are given in Appendix B and Appendix C.)

UMUC will not award credit for courses that repeat work done elsewhere. Students who have earned credit at other colleges or universities are responsible for determining whether courses they plan to take at U M UC would duplicate any previously earned credit. In certain disciplines, some of the content of community college courses may overlap that of beginning upper-level UM UC courses. Students who are in doubt should consult a counselor before registering.

## C redit by Transfer

Credit toward a U M UC degree may be assigned for work completed through the kinds of institutions described in the following sections. As many as 45 semester hours of these transfer credits (in any combination) may be counted toward the associate's degree; as many as 90 semester hours may be counted toward a bachelor's degree. A student who wants to transfer credit from other institutions to UM UC should request a tentative evaluation from the Information and Enrollment Team to determine the applicability of those credits to a degree from U M U C. No transfer credit will be accepted without official transcripts.

Credits earned at other institutions during a period of disciplinary suspension or dismissal from UM UC will not be accepted in transfer.

## Credit from 0 ther Colleges and Universities

W hen the grade earned was at least C , transfer credits from regionally accredited two- and four-year colleges and universities may be accepted for courses that apply to the student's curriculum and do not duplicate other courses for which credit has been awarded.

## Credit from Junior Colleges and Community Colleges

A total of 60 semester hours of credit from two-year institutions (junior colleges or community colleges) may be applied toward a bachelor's degree at U M UC. A student who has already completed 60 semester hours may not apply further credit from a junior college or a community college to a degree from UM UC.

A student who has already matriculated at UM UC may be granted permission to take lower-level courses at a junior college or a community college before having completed 60 semester hours of credit at a junior college or a community college. To receive permission to attend such institutions, the student must submit a written request to a resource team counselor. Such requests must be submitted well ahead of the semester for which the student is registering.

Students participating in one of the community college alliances with UM UC should consult with a UM UC counselor before registering for UM U C courses.

A student who initially enrolled in the public community colleges of M aryland will be admitted to UM UC in conformance with the policy developed and approved by the M aryland H igher Education Commission. (D etails are given in the section on transfer policies in the appendices.)

## Educational Experiences in the Armed Services

U M U C grants credit for study completed in service schools and in M ilitary O ccupational Specialties (M O S's) on the basis of the recommendations by the American Council on Education (ACE) in its Guide to the Evaluation of Educational Experiences in the Armed Services. Such credit is granted only if it is applicable to the student's chosen curriculum. O rdinarily such credit may not be applied toward the general education requirements. UM UC generally accepts recommendations of ACE for lower-level and upper-level credit. Recommendations made by ACE for vocational or technical credit are considered on the same basis as, and with the same limitations as, those placed on nonmilitary sources of credit.

## COMMUNITY COLLEGE OF THE AIR FORCE

U M UC awards credit for study at technical schools of the U.S. Air Force in accordance with recommendations from the Community College of the Air Force (CCAF). Credits must be applicable to the student's chosen curriculum at UM UC, must meet other UM UC requirements for transfer credit, and are subject to the limitations described below.

- W hen a student presents a CCAF transcript, credits are awarded on the basis of evaluation by the CCAF for courses completed after D ecember 1973 (ACE no longer evaluated Air Force schools after that date).
- Since the CCAF records satisfactorily completed courses as S (satisfactory) and specifies that S equals a grade of C or better, credit may be applied wherever appropriate in the U M UC curriculum. Courses that are vocational or technical may be used only as electives and only toward the B.S. degree, up to a maximum of 21 semester hours.
- All credit from the CCAF is lower level and is applicable only to freshman and sophomore requirements.


## SERVICEMEMBERS OPPORTUNITY COLLEGE

As a designated four-year Servicemembers 0 pportunity College (SOC), UM UC provides opportunities for men and women in the military services to complete educational programs through various modes of instruction scheduled at times appropriate to their duty assignments. The SOC institutions have also developed a series of common curricula that correspond to Army, N avy, and M arine career specialties and lead to associate's degrees (SO CAD -2, SO CN AV-2, and SO C M AR-2 programs) and bachelor's degrees (SO CAD -4, SO CN AV-4, and SO C M AR-4 programs). The SOC concept itself was developed jointly by educational representatives from each of the military services, from the U.S. D epartment of D efense, and from 13 of the nation's leading associations of higher education.

## Vocational and Technical Credit

Vocational and technical credit from regionally accredited institutions or American Council on Education-approved organizations, when applicable, may be accepted as elective credit only. Vocational and technical credit may not be used to satisfy degree requirements such as general education or specialization requirements. This credit may be applied toward a certificate or a degree at U M U C, up to the following limits:

- Certificate: A maximum of 6 semester hours.
- Associate's degree: A maximum of 12 semester hours.
- Bachelor's degree: A maximum of 21 semester hours of coherently related work, creditable toward the B.S. only (not the B.A.).


## Noncollegiate Courses

UM UC will accept for credit professional (not technical) courses applicable to the student's curriculum that have been evaluated by either (1) ACE (if the courses are listed in the $N$ ational Guide to Educational Credit for Training Programs) or (2) the State University of N ew York National Program on N on-C ollegiate-Sponsored Instruction (if listed in its College Credit Recommendations).

## Credit by Examination

UM UC may award as many as 60 semester hours of credit by examination toward the bachelor's degree ( 30 semester hours toward the associate's degree), provided that (1) there is no duplication of other academic credit, and (2) the scores presented meet UM UC standards.

Examinations may include the Advanced Placement examinations administered by the College Board, the CollegeLevel Examination Program (CLEP), D efense Activity for Non-Traditional Education Support (DANTES) examinations, and the Regents College Testing program. As many as 30 semester hours of examination credit awarded by other regionally accredited institutions will be accepted for courses that appear on an official transcript with a grade of C or better. Students who have questions about credit by examination are encouraged to consult a counselor.

## Advanced Placement

Advanced placement and college credit may be granted to students who enter UM UC directly from a secondary school, on the basis of scores on a College Board Advanced Placement (AP) examination. These examinations are normally administered to eligible high school seniors during the $M$ ay preceding matriculation in college.

A student intending to transfer AP credit that was awarded at another college or similar institution must have a transcript of those scores sent directly to UM UC from the College Board. When those scores have been received, a counselor will determine whether they meet the standards
established at UM UC for granting AP credit, and how much credit may be awarded.

C redit earned by advanced placement may be used to complete specializations or as electives.

## CollegeLevel Examination Program

Up to 24 semester hours may be awarded for general examinations in the College-Level Examination Program (CLEP). The scores must meet UM UC standards. UM UC may award 3 semester hours each for the English examination and the mathematics examination, and 6 semester hours for the examinations in natural science, social sciences and history, and humanities.

Successful completion of certain subject-area examinations is another way of earning college credit. C ounselors can furnish details.

## D ANTES Examinations

Credit may be awarded for successfully completing certain Subject Standardized Tests of D AN TES (formerly known as USAFI). C ounselors have information on which tests are acceptable.


## Information on Courses

## THE UNIT OF CREDIT

The unit of credit is the semester hour. One semester hour is awarded on the basis of either of two sets of criteria, as follows:

- At least 15 hours ( 50 minutes each) of actual class meeting, or the equivalent in guided learning activity (exclusive of registration and study days, holidays, and final examinations);
- At least 30 hours ( 50 minutes each) of supervised laboratory or studio work (exclusive of registration and study days, holidays, and final examinations).


## PREREQUISITES

Prerequisites, normally stated in terms of numbered courses, represent the level of knowledge a student should have acquired before enrolling in a given course. It is each student's own responsibility to make certain of being academically prepared to take a course. Faculty members are not expected to repeat material listed as being prerequisite.

In some cases, the preparation of students who have gained relevant knowledge through experience is equivalent to the prerequisites for a course at UMUC. In other cases, the preparation of students who fulfilled prerequisites several years previously does not assure them of having retained the necessary knowledge.

Students who are in doubt about having prerequisite knowledge for a course should consult counselors or teachers and follow their recommendations. A teacher's approval may be required in certain cases. Faculty members are always available to discuss whether a student has the preparation necessary to perform well in a given course.

Writing ability equivalent to the successful completion of EN GL 101 Introduction to Writing is prerequisite to any higher-level course in English (with the exception of EN GL 281 Standard English Grammar, Usage, and Diction) or communication studies. M athematical skills equivalent to those taught in M ATH 107 Selected Topics in C ollege Algebra are prerequisite to any higher-level course in mathematics. (Further guidance is in the section describing courses in mathematics.)

Students who have not successfully completed the equivalent of an introductory collegiate course in writing (EN GL 101) at U M U C will be tested for placement. Placement testing is also required for certain courses in mathematics (p. 141). The current U ndergraduate Schedule of C lasses gives times and locations of testing. M ore information may be obtained from the Information and Enrollment Team by calling 301-985-7000.

Another way to fulfill prerequisites is to obtain credit by course-challenge examination. Counselors can explain the procedures. The goal is for students to earn college credit by successfully completing comprehensive tests of material normally covered in a semester-long course. These examinations are specifically prepared for each student's level of knowledge in a given subject. Students may not take coursechallenge examinations for lower-level courses that are prerequisite to courses for which they have already received credit.

## KEY TO COURSE DESCRIPTIONS

Undergraduate courses that have been (or may be) offered by UM UC are listed on the following pages. They are arranged alphabetically by academic department or discipline. The number of semester hours is shown by an arabic numeral in parentheses- e.g., (3) - after the title of the course.

Course numbers are designated as follows:
000-099 N oncredit courses (not included in calculating grade-point average)
100-199 Primarily freshman courses
200-299 Primarily sophomore courses
300-399 Junior and senior courses unacceptable for credit toward a graduate degree
400-499 Junior and senior courses acceptable for credit toward some graduate degrees

Numbers ending with an 8 or a 9 indicate courses that may be repeated for credit.

UM UC may offer courses listed in the catalogs of other institutions of the University System of M aryland if demand warrants and the academic department concerned approves.
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* Only a limited number of courses are availiable each semester in this discipline.


## U ndergraduate Courses

The following entries describe courses offered through University of M aryland University C ollege. Requirements pertain only to degrees conferred at UM UC. To use these courses toward degrees offered by other institutions in the University System of M aryland, students should refer to the catal ogs of those institutions for restrictions that may apply. In transferring to UM UC - particularly from a community college - students should be careful not to enroll in courses that duplicate their previous studies.

## ACCOUNTING

Courses in accounting (designated ACCT) cover a range of topics, including studies in financial accounting, accounting systems, cost/managerial accounting, fund accounting, internal and external auditing, and taxation.

## C ourses in accounting may be applied toward

- a primary specialization in accounting;
- a secondary specialization in either accounting, business and management, health services management, hotel and restaurant management, management, or management studies;
- supporting credit for a management-related primary or secondary specialization and other primary or secondary specializations as approved by a counselor; and
- electives.

A description of the curriculum begins on $p$. 16. Descriptions of other management-related curricula may be found on the following pages: business and management (p. 18), environmental management ( $p .31$ ), health services management (p. 34), hotel and restaurant management (p. 37), management (p. 41), management studies (p. 43), and technology and management (p.48).

ACCT 220

## Principles of Accounting I (3)

(Formerly BM GT 220. M ay not be applied to a primary specialization in accounting.) An introduction to the basic theory and techniques of contemporary financial accounting. Topics covered include the accounting cycle and the preparation of financial statements for single-owner business organizations that operate as service companies or merchandisers. Students may receive credit for only one of the following courses: ACCT 220 or BM GT 220.

ACCT 221

## Principles of Accounting II (3)

(Formerly BM GT 221. M ay not be applied to a primary specialization in accounting.) Prerequisite: ACCT or BM GT 220. A continuation of the study of financial accounting (emphasizing accounting for liabilities and equity), followed by an introduction to managerial accounting. Topics include responsibility accounting, budgets, cost control, and standard costing procedures and variances. Emphasis is on management reporting. Students may receive credit for only one of the following courses: ACCT 221, BM GT 221, M GMT 301, or M GST 301.

## ACCT 310

## Intermediate Accounting I (3)

(Formerly BM GT 310. Students should be cautious about enrolling in ACCT 310 or ACCT 311. These are professional courses requiring intensive study and analysis and are not to be undertaken casually. Students who have not taken ACCT or BM GT 221 within the last two years may have difficulty.) Prerequisite: ACCT or BM GT 221, or equivalent. A comprehensive analysis of financial accounting topics involved in preparing financial statements and in external reporting. Students may receive credit for only one of the following courses: ACCT 310 or BM GT 310.

## ACCT 311

## Intermediate Accounting II (3)

(Formerly BM GT 311. A continuation of ACCT 310. Students should be cautious about enrolling in ACCT 310 or ACCT 311. These are professional courses requiring intensive study and analysis and are not to be undertaken casually. Students who have not taken ACCT or BM GT 221 within the last two years may have difficulty.) Prerequisite: ACCT or BM GT 310, or equivalent. A comprehensive analysis of financial accounting topics, including preparation of financial statements and external reports. Students may receive credit for only one of the following courses: ACCT 311 or BM GT 311.

## ACCT 321

## Cost Accounting (3)

(Formerly BM GT 321.) Prerequisite: ACCT or BM GT 221, or equivalent. A study of the basic concepts of determining, setting, and analyzing costs for purposes of managerial planning and control. Emphasis is on the role of the accountant in the management of organizations and in the analysis of cost behavior, standard cost, budgeting, responsibility accounting, and costs that are relevant for making decisions. Various techniques are used to study cost and managerial accounting concepts; these may include the use of problem sets, case studies, computer applications, and other materials. Students may receive credit for only one of the following courses: ACCT 321 or BM GT 321.

ACCT 323

## Income Taxation of Individuals (3)

(Formerly BM GT 323.) Recommended: ACCT or BM GT 221, or equivalent. An introduction to federal taxation of the income of individuals. Tax laws are examined by means of illustrative examples and problems. Computer applications may be used to anal yze specific examples. Students may receive credit only once under this course number and for only one of the following courses: ACCT 323 or BM GT 323.

## ACCT 326

## Accounting Information Systems (3)

(Formerly BM GT 326.) Prerequisites: ACCT or BM GT 321 and a course in information systems management, or equivalent. A study of the control aspects of accounting systems. Topics include setting standards; defining and imposing administrative, operational, and security controls; judging the cost-effectiveness of systems; and understanding the effects of a computer-based information environment on the possibilities of being audited. Various techniques are used to study accounting information-systems concepts; these may include the use of problem sets, case studies, computer applications, and other materials. Students may receive credit only once under this course number and for only one of the following courses: ACCT 326, BM GT 320, or BM GT 326.
ACCT 328

## Accounting Software (3)

(Formerly ACCT 398A.) Prerequisite: ACCT or BM GT 221, or equivalent. An introduction to accounting software, focusing on evaluation of the benefits, costs, and risks of specific programs. Topics include payroll, inventory, accounts payable, accounts receivable, job cost, and point-of-sale applications. Popular software packages in the areas of tax, audit, and financial statement preparation are introduced. Projects and assignments integrate hands-on experience with the principles of accounting information systems. Students may receive credit for only one of the following courses: ACCT 398A or ACCT 328.

## ACCT 410 <br> Accounting for Government and Not-for-Profit Organizations (3)

(Formerly BM GT 410.) Prerequisite: ACCT or BM GT 310, or equivalent. An introduction to the fund-based theory and practice of accounting as applied to governmental entities and not-for-profit organizations. Various techniques are used to study fund accounting concepts; these may include the use of problem sets, case studies, computer applications, and other materials. Students may receive credit only once under this course number and for only one of the following courses: ACCT 410 or BM GT 410.

## ACCT 411

## Ethics and Professionalism in Accounting (3)

Prerequisite: ACCT or BM GT 311, or equivalent. Analysis and discussion of issues relating to ethics and professionalism in accounting. The C ode of Professional Conduct and the reasoning, philosophy, and application of that code are examined. Students may receive credit for only one of the following courses: ACCT 411 or BM GT 411.

ACCT 417

## Taxation of C orporations, Partnerships, Fiduciaries, and Gifts (3)

(Formerly BM GT 417.) Prerequisites: ACCT or BM GT 311 and ACCT or BM GT 323, or equivalent. Examination of the federal taxation of corporations, partnerships, fiduciaries, and gratuitous transfers, with information on the tools and techniques of tax research for compliance and planning. Various techniques are used to study tax accounting concepts; these may include the use of problem sets, case studies, computer applications, and other materials. Students may receive credit only once under this course number and for one of the following courses: ACCT 417 or BM GT 417.

## ACCT 422

## Auditing Theory and Practice (3)

(Formerly BM GT 422.) Prerequisite: ACCT or BM GT 311, or equivalent. A study of the independent accountant's attest function, generally accepted auditing standards, compliance and substantive tests, and report forms and opinions. Various techniques are used to study auditing concepts and practices; these may include the use of problem sets, case studies, computer applications, and other materials. Students may receive credit for only one of the following courses: ACCT 422 or BM GT 422.

## ACCT 424

## Advanced Accounting (3)

(Formerly BM GT 424.) Prerequisite: ACCT or BM GT 311, or equivalent. A study of advanced accounting theory, applied to specialized topics and contemporary problems. C onsolidated statements and partnership accounting are emphasized. Various techniques are used to study accounting theory and practice; these may include the use of problem sets, case studies, computer applications, and other materials. Students may receive credit for only one of the following courses: ACCT 424 or BM GT 424.

## ACCT 426

## Advanced Cost Accounting (3)

(Formerly BM GT 426.) Prerequisite: ACCT or BM GT 321, or equivalent. A study of advanced cost accounting that emphasizes the managerial aspects of internal systems of recordkeeping and control. Various techniques are used to study cost and managerial accounting practices and problems; these may include the use of problem sets, case studies, computer applications, and other materials. Students may receive credit for only one of the following courses: ACCT 426 or BM GT 426.

## ACCT 427

## Advanced Auditing Theory and Practice (3)

(Formerly BM GT 427.) Prerequisite: ACCT or BM GT 422, or equivalent. An examination and a thorough study of special auditing topics. Statistical sampling, professional ethics, EDP auditing, legal liability, and SEC accounting are covered. Various techniques are used to study auditing theory and practice; these may include the use of problem sets, case studies, computer applications, and other materials. Students may receive credit for only one of the following courses:
ACCT 427 or BM GT 427.

## ACCT 498A

## International Accounting (3)

(Fulfills the historical and international perspective requirements.) Prerequisite: ACCT 311. A study of accounting in a multinational context. Emphasis is on evolving international accounting and reporting standards, problems of foreign exchange and taxation, intercompany transfer pricing, and emerging issues in international accounting.

## ACCT 498E <br> Internal Auditing (3)

(Formerly BM GT 498E.) Prerequisite: ACCT or BM GT 311, or equivalent. An introduction to internal auditing, its rapid growth, and its role in the modern corporation.
The focus is on internal auditing standards, scope, responsibilities, ethics, controls, techniques, and reporting practices. Consideration is given to the material included in the theory and practice sections of the Certified Internal Auditor examination. Various techniques are used to study internal auditing theory and practice; these may include the use of problem sets, case studies, computer applications, and other materials. Students may receive credit for only one of the following courses: ACCT 498E or BM GT 498E.

## ANTHROPOLOGY

## Courses in anthropology (designated ANTH) may be applied toward

- the general education requirement in the social and behavioral sciences;
- a primary or a secondary specialization in sociology/ anthropology;
- supporting credit for a primary or a secondary specialization in sociology or sociology/anthropology; and
- electives.

A description of the sociology/anthropology curriculum begins on p. 48.

ANTH 101

## Introduction to Anthropology: Archaeology and Physical Anthropology (3)

A survey of general patterns in the development of human culture, addressing the biological and morphological aspects of humans viewed in their cultural setting. Students may receive credit for only one of the following courses: AN TH 101, AN TH 220, or AN TH 240.

ANTH 102

## Introduction to Anthropology: Cultural Anthropology and Linguistics (3)

(Fulfills the international perspective requirement.) A survey of social and cultural principles inherent in ethnographic descriptions, coupled with the study of language in the context of anthropology.

## ANTH 298 <br> Special Topics in Anthropology (3)

A presentation of anthropological perspectives on selected topics of broad general interest. $M$ ay be repeated to a maximum of 6 credits when topics differ.

## ANTH 320 <br> Human Evolution (4)

Prerequisite: ANTH 220. An assessment of the fossil, biochemical, and molecular evidence for human evolution from the divergence of hominids from the pongid line to modern times. Basic principles of human evolution, as seen by comparative anatomic study of fossil specimens and assessments of molecular and biochemical data, are examined through laboratory survey. Students may receive credit for only one of the following courses: ANTH 320 or ANTH 361.

## ANTH 417

## Peoples and Cultures of the Far East (3)

(Fulfills the international perspective requirement.) A survey of the principal sociopolitical systems of China, K orea, and Japan. M ajor anthropological questions are examined. Students may receive credit only once under this course number.

## ART

Courses in art (designated ART T) may be applied toward

- the general education requirement in the arts and humanities;
- a primary specialization (for the B.A. only) or a secondary specialization in art; and
- electives.

Students who have already received credit for courses designated ARTS may not receive credit for comparable courses designated ARTT unless they are repeatable. In cases of repeatable courses, the combined credits in courses designated ARTS and courses designated ARTT may not exceed the maximum for a particular course number.

A description of the curriculum begins on p. 17.
ARTT 100

## Two-D imensional Art Fundamentals (3)

An exploration of the principles and elements of pictorial space examined through the manipulation and organization of various materials.

ARTT 110
Elements of D rawing I (3)
An introduction to various media and related techniques. Problems for study are based on the figure, still life, and nature.

ARTT 150

## Introduction to Art Theory (3)

An examination of contemporary art, including a review of the dominant aesthetic, philosophic, and critical positions that inform the various works of art studied.

ARTT 200
Elements of Three-D imensional Form and Space (3)
(A continuation of ARTT 100.) Prerequisites: ARTS or ARTT 100 and 110. Further study of pictorial space, focusing on problems that are more individually structured in terms of form, composition, and meaning.

## ARTT 208C

## Intermediate Special Topics in Art: C olor (3)

D evelopment of a student's work on an intermediate level. The principles of color in composition and pictorial construction are covered.

ARTT 210
Elements of D rawing II (3)
Prerequisites: ARTS or ARTT 100 and 110. D rawing taught with an emphasis on understanding organic form as related to study of the human figure and pictorial composition.

## ARTT 250 <br> Elements of Design (3)

Prerequisite: ARTT 100. A study of essential design concepts focusing on the creative skills needed to better solve internal corporate and external advertising/marketing problems in visual media. Theoretical and practical applications include corporate/institutional identity programs, collateral corporate and marketing materials, and advertising campaigns. The primary relationship between word and image communications is also discussed. Emphasis is on creative problem solving in media communications. Visual structure, continuity, and coherence are addressed by exploring symbolism and its relationship to image. Psychological and sociocultural questions are also addressed as they relate to ethical standards and practices.

ARTT 320
Elements of Painting (3)
Prerequisite: ARTS or ARTT 210. An introduction to the basic tools and vocabulary of painting. O il and/or waterbased paints are used.

## ARTT 354

## Elements of Computer Graphics (3)

Prerequisite: O ne lower-level course in ART T or equivalent experience in graphic design. A study of strategies and techniques associated with graphic design in computer environments. Topics include imaging, illustration, and multimedia creation. Projects require six hours of computer work per week, some of which must be completed independently.

## ARTT 418

## D rawing (3)

Prerequisite: ARTS or ARTT 210. Creation of original compositions based on the figure and nature, supplemented by problems of personal and expressive drawing. $M$ ay be repeated to a maximum of 12 credits.

## ARTT 428 <br> Painting (3)

Prerequisite: ARTS or ARTT 320. Creation of original compositions based on the figure, nature, and still life, as well as expressive painting. Emphasis is on the development of personal directions. M ay be repeated to a maximum of 12 credits.

## ARTT 468

## Seminar: Interrelationship Between Art and Art Theory (3)

An exploration of the relationship between a student's work and the theoretical context of contemporary art. M ay be repeated to a maximum of 6 credits when topics differ.

## ARTT 479

## C omputer Graphics (3)

Prerequisite: ARTT 354. A study of advanced techniques in and the theory behind computer imaging, graphics, illustration, and mixed media. Projects require six hours of computer work per week, some of which must be completed independently.

## ARTT 489

## Special Problems in Studio Art (3)

$M$ ay be repeated to a maximum of 6 credits.

## ARTT 498

## D irected Studies in Art (2-3)

(For advanced students.) M ay be repeated to a maximum of 6 credits when topics differ.

## ART HISTORY

## Courses in art history (designated ART H) may be applied toward

- the general education requirement in the arts and humanities;
- a secondary specalization in art history;
- a primary or a secondary specialization in area studies (when appropriate);
- supporting credit for a primary or a secondary specialization in art or history; and
- electives.

UM UC offers a limited number of ARTH courses each semester.

ARTH 100

## Introduction to Art (3)

A grounding in the basic tools of understanding visual art. M ajor approaches such as techniques, subject matter, form, and evaluation are the focus. Painting, sculpture, architecture, and the graphic arts are discussed.

## ARTH 200

Art of the Western World to 1300 (3)
(Fulfills the historical and international perspective requirements.) A survey of the development of Western art as expressed in painting, sculpture, and architecture from prehistoric times to the Renaissance. Students may receive credit for only one of the following courses: ARTH 200 or ARTH 260.

## ARTH 201

## Art of the Western World from 1300 (3)

(Fulfills the historical and international perspective requirements.) A survey of the development of Western art as expressed in painting, sculpture, and architecture from the Renaissance to the present. Students may receive credit only once under this course number.

## ARTH 321

## 16th-C entury Northern European Painting (3)

(Formerly ARTH 425. Fulfills the historical and international perspective requirements.) A review of painting in France, the Germanies, England, and the Low Countries during the Renaissance and the Reformation. Students may receive credit for only one of the following courses: ARTH 321, ARTH 417, or ARTH 425.

## ARTH 323

## 15th-Century Italian Renaissance Art (3)

(Formerly ARTH 415. Fulfills the historical and international perspective requirements.) An overview of the painting, sculpture, architecture, and decorative arts of the 15th century. Students may receive credit for only one of the following courses: ARTH 323 or ARTH 415.

## ARTH 335 <br> 17th-C entury Art in the Netherlands (3)

(Formerly ARTH 435. Fulfills the historical perspective requirement.) An exploration of painting, from the D utch Golden Age - the age of Rembrandt, Vermeer, H als, Steen, and Leyster. H istory painting, still life, landscape, portraiture, and scenes of everyday life are studied. Issues of collecting art are also discussed. Students may receive credit for only one of the following courses: ARTH 335 or ARTH 435.

## ARTH 346

## 19th-Century European Art Since 1850 (3)

(Formerly ARTH 446. Fulfills the historical and international perspective requirements.) An overview of major trends in painting, sculpture, and architecture from Realism through Impressionism to Symbolism and Art Nouveau. Students may receive credit for only one of the following courses: ARTH 346, ARTH 441, or ARTH 446.

## ARTH 350

## 20th-C entury Art from 1945 (3)

(Formerly ARTH 455. Fulfills the historical and international perspective requirements.) An overview of painting, sculpture, and architecture in Europe and N orth America from the late 19th century to the end of World War II. Students may receive credit for only one of the following courses: ARTH 350, ARTH 450 or ARTH 455.

## ARTH 351

## 20th-C entury Art from 1945 (3)

(Formerly ARTH 456. Fulfills the historical and international perspective requirements.) An overview of painting, sculpture, and architecture in Europe and N orth America from 1945 to the present. Students may receive credit for only one of the following courses: ARTH 351, ARTH 451, or ARTH 456.

## ARTH 361

## American Art Since 1876 (3)

(Formerly ARTH 460. Fulfills the historical perspective requirement.) An overview of painting, sculpture, architecture, and the decorative arts in N orth America after 1876. Students may receive credit for only one of the following courses: ARTH 361, ARTH 460, or ARTH 477.

ARTH 380
Masterpieces of Painting (3)
(Fulfills the historical and international perspective requirements.) Analysis of selected masterworks of painting, intended to reveal the creative process, the personality of the artist, and the cultural context. Students may receive credit for only one of the following courses: ARTH 320 or ARTH 380.

ARTH 384

## Art of Japan (3)

(Formerly ARTH 395. Fulfills the historical and international perspective requirements.) A chronological survey of Japanese painting, sculpture, architecture, and applied arts. Students may receive credit for only one of the following courses: ARTH 384, ARTH 395, or ARTH 407.

## ARTH 486

## Japanese Painting (3)

(Formerly ARTH 495. Fulfills the historical and international perspective requirements.) A survey of Japanese painting from the 6th through the 19th centuries. Buddhist icon painting, narrative scrolls, and Zen-influenced ink painting are covered. Students may receive credit for only one of the following courses: ARTH 405, ARTH 486, or ARTH 495.

## ARTH 490

## Chinese Painting (3)

(Fulfills the historical and international perspective requirements.) A historical survey of Chinese painting from the 2nd century в.с. through the 20th century. Cultural, stylistic, and theoretical aspects are analyzed.

## ASIAN STUDIES

## C ourses in Asian studies (designated AST D ) may be applied toward

- the general education requirements in the arts and humanities or the social and behavioral sciences (based on course content);
- a primary specialization (for the B.A. only) or a secondary specialization in Asian studies or area studies; and
- electives.

UM UC offers only a limited number of courses each semester in this discipline. To complete a primary or a secondary specialization, students may need to take courses at other institutions in the University System of $M$ aryland or to extend the time spent in fulfilling the degree requirements. Students are advised to consult a counselor before selecting this discipline as a primary or secondary specialization.

## ASTD 150 <br> Introduction to Asian Studies I (3)

(T he first course in the two-course sequence AST D 150160. Fulfills the historical and international perspective requirements, and the general education requirements in the humanities and the social sciences.) An interdisciplinary examination of the classical Asian tradition, encompassing a general survey of the region.

## ASTD 160

## Introduction to Asian Studies II (3)

(The second course in the two-course sequence AST D 150160. Fulfills the historical and international perspective re quirements, and the general education requirements in the humanities and the social sciences.) An interdisciplinary examination of the modern period in Asian history, beginning approximately with the 17th century.

ASTD 300

## The Chinese: Adapting the Past, Building the Future (3)

(Fulfills the historical and international perspective requirements.) An examination of contemporary Chinese society as it seeks modernization after a century of rapid change.

ASTD 301

## The Japanese: Adapting the Past, Building the

 Future (3)(Fulfills the historical and international perspective requirements.) An examination of modern Japanese society as it attempts to find its place in the post-C old War world after a century of imperial expansion, ruinous defeat, and economic renewal.

## ASTD 302

## The Two Koreas: Problems and Prospects (3)

(Fulfills the historical and international perspective requirements.) An examination of K orean society in both N orth and South Korea. Topics include the legacy of the past, unifying factors, internal forces, contemporary issues, and prospects for reunification.

## ASTD 303

## India: The Weight of Tradition in the M odern World (3)

(Fulfills the historical and international perspective requirements.) A study of contemporary Indian society as it seeks modernization within an ageold culture and caste system. Subcontinent issues also deal with Pakistan.

ASTD 304

## Southeast Asia: D evelopment and Diversity (3)

(Fulfills the historical and international perspective requirements.) A broad examination of Southeast Asia in the 20th century. Topics include colonization, nationalism, independence, factors of unity and disunity, the role of regional organizations such as ASEAN , and contrasting developmental models.

ASTD 485

## Great Issues in Asian Studies (3)

(Fulfills the international perspective requirement.) Prerequisite: Junior standing or permission of teacher. A comparative study of modernization in Asian nations. Topics complement previous study on Asia.

## ASTRONOMY

## C ourses in astronomy (designated AST R) may be applied toward

- the general education requirement in biological and physical sciences; and
- electives.

ASTR 100

## Introduction to Astronomy (3)

( N ot open to students who have taken or are taking any astronomy course numbered 250 or higher. Especially appropriate for students not specializing in a science.) An elementary study of descriptive astronomy, discussing the sun, moon, planets, stars and stellar evolution, nebulae, and galaxies. Students may receive credit for only one of the following courses: AST R 100, AST R 101, or AST R 120.

ASTR 330

## Solar-System Astronomy (3)

(Primarily for students not specializing in a science.) Prerequisite: AST R 100, AST R 101, or permission of teacher. An overview of the structure of planets and their atmospheres, with attention to the composition and behavior of comets, asteroids, and satellites. Various theories of the origin of the solar system are compared; recent data and interpretations are presented.

## BEHAVIORAL AND SOCIAL SCIENCES

## Courses in behavioral and social sciences (designated BEHS) may be applied toward

- the general education requirement in the social and behavioral sciences;
- a primary or a secondary specialization in behavioral and social sciences;
- supporting credit for numerous specializations, including gerontology, psychology, and sociology/anthropology (when appropriate; students should consult a counselor for details); and
- electives.

M ost courses require extensive writing. Students should complete a writing course (EN GL 101, EN GL 391, or EN GL 396) or have equivalent writing experience before enrolling. A description of the curriculum begins on p. 17.

BEHS 102

## Introduction to Sociology (3)

An introduction to the fundamental concepts and principles of sociology. Topics include cultural considerations, patterns of social interaction, norms, values, social institutions, stratification, and social change. Students may receive credit for only one of the following courses: BEH S 102 or SOCY 100.

## BEHS 201

## Introduction to Behavioral and Social Sciences (6)

An interdisciplinary introduction to the behavioral and social sciences, with special attention to the interrelationships of anthropology, sociology, psychology, and political science. Basic concepts, major schools of thought, and the findings of scientific research are examined. Social phenomena are analyzed from an interdisciplinary perspective.

BEHS 202

## Introduction to Research Methods and Statistics (3)

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## BEH S 221 <br> Social Psychology (3)

(Formerly BEH S 421. Also offered as PSYC 221.) Prerequisite: PSYC 100. An examination of the influence of social factors on individual and interpersonal behavior. Topics such as conformity, attitudinal change, personal perception, interpersonal attraction, and group behavior are covered. Students may receive credit for only one of the following courses: BEH S 221, BEH S 421, BEH S 450, or PSYC 221.

## BEH S 305

## The Pacific Century (3)

(Fulfills the historical and international perspective requirements.) An interdisciplinary introduction to contemporary East and Southeast Asia that surveys the political, economic, and cultural changes of the past 100 years- from colonialism to nationalism and from military clashes to economic problems. Focus is on understanding the sources of the region's dynamics and the roots of its diversity. The contrasting themes of tradition and modernization, as well as American attitudes of isolationism and expansion toward Asia, are explored. The historic and geographic context for both the development of the Pacific basin and its impact on the global community is illuminated. Video programs from the series "T he Pacific C entury" are integrated with the course materials. Students may receive credit for only one of the following courses: ASTD 305 or BEH S 305.

## BEHS 310

## Race to Save the Planet (3)

(Fulfills the international perspective requirement.) An exploration of global environmental problems: overpopulation, de forestation, pollution of air and water, waste and misuse of dwindling energy resources, the effects of industrialization, loss of species and the habitats that support the world's biodiversity, unsustainable agricultural practices, and changes in humankind's values and actions that can arrest the deterioration of our environment. The scientific basis underlying environmental deterioration and the means by which it can be halted are examined. Environmental problems are placed within the context of personal and societal values; the value of sustainability is introduced and emphasized. The global extent of the problems and solutions is underscored by video segments filmed in 29 nations and all settled continents. M aterials from the telecourse "Race to Save the Planet" are integrated with the presentation. Students may receive credit for only one of the following courses: BEH S 310 or H U M N 360.

## BEHS 312

## The Individual and Society (6)

(Fulfills the historical and international perspective requirements.) A study of interactions between the individual and society. Basic sociological concepts, theories, and methods of research are presented as they apply to the individual. Those means are used in examining how the individual is shaped by history, family, and the surrounding cultural environment. Another focus is the reciprocal relationship, whereby individuals modify the world around them and their ideas influence society.

BEHS 313

## D ynamics of Social Conflict (6)

A foundation in the sociology and social psychology of conflict. Social conflict is examined in its function as a dynamic and pervasive aspect of human behavior. Analysis covers four levels: intrapersonal, interpersonal, intergroup, and international. The nature, types, and processes of social conflict are explored systematically. M ethods of regulating, resolving, and managing conflict are discussed.

## BEHS 314

## The Contemporary Family: Image and Reality (6)

Analysis of the contemporary family in its anthropological, sociological, philosophical, psychological, psychotherapeutic, and legal aspects. Topics include theoretical and practical studies of contemporary family structures, cross-cultural comparisons, the effects of sexual liberation, the characteristics and position of the child in the new family, the effects of the parental workplace, variations in family life, experimental family patterns, strengths and weaknesses of the contemporary family, and speculations about the family of the future.

## BEHS 315

## The Adult Years: C ontinuity and Change (6)

A study of the adult years as a complex process rather than a developmental stage. The adult experience is considered in terms of the variations in experience and in perceptions that are determined by one's age, sex, race, ethnic origins, and social class, as well as historical context. Issues discussed include the social meaning of age, age-related physiological changes, marriage and friendships, intergenerational relationships, changes in the self, and transitions in adult life. The multidisciplinary approach incorporates various perspectives in current research.

BEHS 334

## The Soldier and the State: Politics of the Military (6)

(Fulfills the international perspective requirement.) An investigation of the changing roles of the military in the social, economic, and political life of modern states. The multidimensional character and variable functions of military forces in the Third World, communist/socialist states, and the West are compared, with particular attention to the political and sociological aspects of the armed forces in contemporary American society.

BEHS 335

## Foreign Policy and the New World O rder (6)

(Fulfills the international perspective requirement.) A comparative study of foreign policy among the economic and military world powers: the United States, the People's Republic of China, Japan, the European Economic Community, and Russia. Focus is on their special characteristics in terms of foreign policy, their comparative behavior, and their interreIationships. Topics include the collapse of the Soviet Union, conflict in the M iddle East, the rise of new economic powers, and other events that are reshaping the world order. Students may receive credit for only one of the following courses: BEH S 332, BEH S 335, or BEH S 498B.

BEHS 336

## The Middle East: An Interdisciplinary Perspective (6)

(Fulfills the international perspective requirement.) A general overview of the M iddle East, the scene of critical and repeated conflict. Discussion addresses fundamental questions such as the following: W hat is the M iddle East? W hat links its disparate ethnic, religious, and political groups? W hat are the origins of its current political conditions? Topics include the land and its people, Islam, civilization, nationalism and modernization, the consequences of W orld Wars I and II, cultural change and gender roles, Israel and the Palestinians, and fundamentalism and sectarianism. Students may receive credit for only one of the following courses: BEHS 336 or BEHS 498C.

BEHS 337
America in Vietnam: An Interdisciplinary
Perspective (6)
(Fulfills the international perspective requirement.) A multidisciplinary interpretation of the complex involvement of the U nited States in V ietnam. K ey themes include foreign policies after World War II that led to the Vietnam War, the political and military objectives of the United States, domestic responses in the United States to military involvement, and the lessons and legacies of the war.

## BEHS 340

## Outlooks in Anthropology (6)

(Fulfills the international perspective requirement.) An interdisciplinary exploration of physical and cultural anthropology, linguistics, and archaeology. Themes of discussion cover the evolution of human variation and cultures as adaptive systems. Theory and contemporary applications are examined. Students may receive credit for only one of the following courses: BEH S 340 or BEH S 341.

## BEHS 343

## Parenting Today (6)

An overview of critical issues of parenthood in the U nited States today. Aspects discussed include characteristics of effective parenting styles and capable parents, the role of nontraditional parenting techniques, and the social forces that cause changes in parent/child relationships and give rise to varying styles of parenting as developed in the U nited States. Some cross-cultural comparisons are included. Students may receive credit only once under this course number.

BEHS 345

## China: An Interdisciplinary Perspective (6)

(Fulfills the international perspective requirement.) An interdisciplinary study of the world's largest nation and oldest living culture. Geographical, economic, historical, sociological, ideological, cultural, and political perspectives are integrated into a dynamic journey through the major watershed events in China from prehistoric to modern times. Ancient myths and wonders, classical traditions and inventions, the modern collision with the West, the communist period, and the post-M ao era are some of the major topics covered. M aterials from the telecourse " $T$ he Chinese" are included with the course.

## BEHS 351

Issues in Criminal Justice (6)
An interdisciplinary exploration of criminal justice. Topics include theories of the causes of crime; requisites of criminal liability; defenses; the rights guaranteed by the Fourth, Fifth, and Sixth Amendments to the U.S. Constitution; undercover investigation; special issues in juvenile justice; and the highly controversial issues of capital punishment and victimization. Students may receive credit for only one of the following courses: BEH S 351 or CCJS 100.

## BEH S 361 <br> Global Environmental Change (6)

(Also listed as H UM N 360 and GN SC 361 . Yields 3 natural science credits and either 3 humanities credits or 3 social science credits. Fulfills the historical and international perspective requirements.) An in-depth examination of environmental changes that many believe are caused by human adaptations to Earth's natural resources, and the possible effects on both the global biosphere and the human condition. Scientific and social issues are explored through various questions: Is global warming really happening? W ill sea levels rise as predicted by some? W hat are the consequences of massive deforestation? W hat can be done when there is so much scientific uncertainty and global social diversity? The concept of sustainability, as it applies to human interactions with the environment, is emphasized. Students may receive credit for only one of the following courses: BEH S 361, GN SC 361, or HUMN 360.

## BEHS 363

## H uman Sexuality and Sexual Experience (6)

An examination of recent attitudes and behavior in the United States concerning human sexuality and sexual experience. Topics include the role of human sexuality through the life cycle; the relation of styles of sex education to sexual experience; variations in human sexual experience; issues of birth control, homosexuality, and bisexuality; sexually transmitted diseases; rape and its implications; sex therapy; research on sexuality; and probable national trends in sexuality and sexual experience.

## BEH S 364

## Alcohol in American Society (6)

An interdisciplinary examination of the use and abuse of alcoholic beverages from the perspectives of psychology, physiology, sociology, medicine, and public health. The effects of alcohol on children, women, families, the workplace, and public safety are explored. Current research and trends in the treatment of alcoholism (including prevention, assessment, and intervention) are analyzed.

## BEHS 372

## Legacy of the Civil Rights M ovement (6)

(Fulfills the historical perspective requirement.) An examination of the civil rights movement in the U nited States from World War II to the present. Focus is on the era of protest and reform through the 1980s, with analysis of its influence into the present decade. M aterials from the telecourse "Eyes on the Prize" are integrated with the course. Students may receive credit for only one of the following courses: AASP 298S or BEH S 372.

## BEHS 383

## Humor in American Society (6)

An interdisciplinary examination of humor in everyday life. Special topics include the historical development of humor in the U nited States; the effects of the surrounding culture on the substance and function of humorous materials; the various types of humor and societal taboos; humor in literature, cinema, radio, television, and politics; the relationship of humor to social change; the social function of cartoons; and humor in other societies as well as in everyday life in these U nited States. Sociological, psychological, political, and anthropological perspectives are presented.

## BEH S 398H

## Science and Society (3)

(Science background not required. D oes not fulfill the natural science requirement.) An examination of the integration of science and society. Topics include the impact of various fields of scientific study on the structural, economic, legal, educational, health care, public policy, and political systems of current local and global societies. The influence of societal morals, beliefs, and customs on the current practice of scientific inquiry is also considered. Students may receive credit for only one of the following courses: BEH S 398 H or TM GT 280.

## BEHS 411

## People and Organizations (6)

A sociological and psychological inquiry into complex organizations, with special emphasis on mechanisms of both formal and informal organizational control. The effects of the organization upon the individual, as well as the individual's interactions with the organization, are explored. Topics include the classification of organizations; power, roles, and decision making; and organizational reality. M ajor theories of organizations are al so studied.

## BEHS 415

## Aging in America (6)

An interdisciplinary study of aging, from a holistic perspective. Areas of inquiry include the history of gerontology in the U nited States, research in gerontology, varying styles and patterns of aging in the United States, the value systems of the older population, social forces that affect styles of aging in the U nited States, and an evaluation of the increasingly significant role of the aged in our nation. Sociological, psychological, anthropological, political, and economic perspectives are considered. Students may receive credit for only one of the following courses: BEH S 352 or BEH S 415.

BEH S 440

## International Economics (3)

(Fulfills the historical and international perspective requirements.) Recommended: ECON 201 and 203, or ECON 205. A description of international trade and an analysis of international transactions, exchange rates, and balance of payments. Policies of protection, devaluation, and exchangerate stabilization and their consequences are al so anal yzed. Video programs from the series "Inside the G lobal Economy" are integrated with the course materials. Students may receive credit for only one of the following courses: BEH S 440, ECON 440, or ECON 441.

BEH S 444
Risk (6)
An interdisciplinary analysis of risk, drawing on literature in the social sciences and management. The concept of risk is explored in its economic, physical, social, and ethical manifestations. Topics include calculations of risk, recognition of the risks inherent in decisions, and risk analysis in public policy. Personal as well as academic involvement is stimulated. Students may receive credit for only one of the following courses: BEH S 444 or TM GT 444.

## BEHS 454

## D omestic and Family Violence (3)

(Formerly Family V iolence.) An examination of the factors involved in understanding, evaluating, and responding to violence within families and domestic units. Study is based on a systems model, integrating the personal, social, economic, legal, political, and medical considerations that either support the functioning of or cause stress in families and domestic units. Topics include the physical, emotional, and sexual abuse of children; spousal abuse; the abuse of elders; and dysfunctions in relationships of unmarried couples (both heterosexual and homosexual). Discussion covers current systems of response and ways of preventing violence by strengthening the resources available to families and domestic units. Students may receive credit only once under this course number.

## BEHS 461

## Evolving Female and M ale Gender Roles (6)

A revised and updated interdisciplinary exploration of genderdefined roles from the perspectives of anthropology, psychology, sociology, economics, and politics. The goal is to clarify the origins of gender-defined roles, changes in those roles, and relationships between the roles. Special attention is given to gender-defined roles as they relate to the behavior of individuals and groups, behavior in economic and political activities, and variables in and between ethnic groups and social classes. The future circumstances of gender roles in the U nited States are conjectured. Students may receive credit for only one of the following courses: BEH S 402 or BEHS 461.

## BEHS 462

## The Psychology of Advertising (6)

An analysis of advertising in terms of psychological theory and observations of consumers' behavior. The information and fundamental insights presented regarding advertising are useful for consumers as well as for potential practitioners of advertising. General theoretical principles in the social sciences are applied to the processes of identifying a target population and developing and evaluating an advertising plan. The effectiveness of advertisements is examined from the standpoints of psychology, sociology, and politics.

## BEHS 463

## Stress and the Social System (6)

An interdisciplinary examination of the forces that define and determine the stress response in Americans. Stress is studied as the product of the interactions of one's social structure, occupational status, and psychological and physiological levels of well-being. The perspective of the social sciences is brought to bear on the stressors produced by contemporary culture, social roles, work organizations, political climate, definitions of achievement, socioeconomic pressures, and the conflicts of those circumstances with ethical and moral values. Practical applications discussed include the constructive use of stress-management techniques and the relationship between stress and illness.

BEHS 480

## Exploring the Future (6)

(Also listed as TM GT 480. Fulfills the international perspective requirement.) An examination of how to analyze and develop alternative ways of seeing the future. The interactions of population, technology, political and economic systems, values, and leadership are investigated. Techniques futurists use-including scenario construction, trend analysis, the futures wheel, and environmental scanning-are explained. Techniques are applied in societal, professional, and personal settings. Students may receive credit for only one of the following courses: BEH S 480, M GM T 398H, TM GT 401, or TM GT 480.

## BIOCHEMISTRY

## C ourses in biochemistry (designated BCH M ) may be applied toward

- the general education requirement in the biological and physical sciences; and
- electives.


## BCHM 261

## Elements of Biochemistry (3)

(For students who desire a one-semester biochemistry course rather than a two-semester sequence.) Prerequisite: CH EM 104, CHEM 233, or CHEM 235; one course in biology or zoology emphasizing the molecular and cellular basis of life strongly recommended. An overview of the basic chemistry and metabolism of most molecules that have biological importance. Students may receive credit for only one of the following courses: BCH M 261 or BCH M 461.

## BCHM 461

## Biochemistry I (3)

Prerequisite: Any organic chemistry course; one course in biology or zoology emphasizing the molecular and cellular basis of life strongly recommended. A comprehensive introduction to general biochemistry. Topics include the chemistry and metabolism of carbohydrates, lipids, nucleic acids, and proteins.

BCHM 462
Biochemistry II (3)
(A continuation of BCH M 461.) Prerequisite: BCH M 461. Further study of general biochemistry.

## BIOLOGY

## Courses in biology (designated BIOL) may be applied toward

- the general education requirement in the biological and physical sciences; and
- electives.

BIOL 105

## Principles of Biology I (4)

(For students specializing in a science. Fulfills the laboratory science requirement. Lab fee required.) An introduction to the basic principles of biology, with special emphasis on cellular and molecular biology. Students may receive credit for only one of the following courses: BIOL 101, BIOL 105, BOTN 101, BSCI 105, or ZO OL 101.

## BIOL 106 <br> Principles of Biology II (4)

(Fulfills the laboratory science requirement. Lab fee required.) An introduction to the basic principles of biology, with special emphasis on organismic, ecological, and evolutionary biology. Students may receive credit for only one of the following courses: BIOL 101, BIOL 106, or BSCI 106.

## BIOL 201

## Human Anatomy and Physiology I (4)

(Also listed as ZO OL 201. Fulfills the laboratory science requirement.) Prerequisite: BIOL 101, BIOL 105, or equivalent. A thorough introduction to the anatomy and physiology of the skeletal, muscular, nervous, and sensory systems of human beings. An overview of cellular physiology is included. Students may receive credit for only one of the following courses: BIOL 201 or ZO OL 201.

BIOL 202

## Human Anatomy and Physiology II (4)

(Also listed as ZO OL 202. Fulfills the laboratory science requirement.) Prerequisite: ZOOL 101 or equivalent. An introduction to the anatomy and physiology of the cardiovascular, respiratory, digestive, excretory, and reproductive systems. Intermediary metabolism and endocrine relationships are also studied. Students may receive credit for only one of the following courses: BIOL 202 or ZO OL 202.

## BIOL 211

## Environmental Science (3)

(Formerly BOTN 211 and PBIO 235. No prior college credit in biology or physics required.) A survey of ecological principles as they apply to the interrelated dilemmas of population, pollution, the increasing consumption of natural resources, and the ethics of land use. Students may receive credit for only one of the following courses: BIOL 211, BOTN 211, or PBIO 235.

## BIOL 346

## Human Genetics and Society (3)

(Formerly ZOOL 346. For students who are not specializing in the biological sciences but want to develop an understanding of genetics, especially as it relates to human beings and the decisions they make as individuals and as members of society.) Prerequisites: Two college courses in the natural sciences and/or in mathematics. A study of genes in relation to the social system. Attention is focused on mutation and transmittal and on the probable effects of recent genetic discoveries on present and future generations. Students may receive credit for only one of the following courses: BIOL 346, ZO OL 146, or ZO OL 346.

## BIOL 398H

## H uman H ealth and D isease (3)

(Primarily for students not specializing in a science.) A survey of mechanisms of disease and their expression in major organ systems of the human body. Topics include infections, cancer, heart disease, lung disease, diabetes, stroke, malnutrition, poisoning by environmental toxins, stress, inflammation, disorders of the immune system, and aging. Prevention of disease through control of risk factors and early detection is emphasized.

## buSiness and management

Courses in business and management (designated BM GT) at UMUC cover a range of topics, including business law and public policy, customer service and operations management, entrepreneurial management, finance, general management, human resource management and labor relations, marketing, and technology and management.

## C ourses in business and management may be applied toward

- a primary specialization in business and management or management studies;
- a secondary specialization in either business and management or management studies;
- supporting credit for a primary or secondary specialization in accounting, environmental management, health services management, hotel and restaurant management, management, or technology and management; and
- electives.

Three specializations (hotel and restaurant management, management, and technology and management) are being absorbed into the business and management special ization beginning fall 1999. Each of these three specializations will have reduced course offerings from fall 1999 through summer 2001.

To complete a specialization in hotel and restaurant manage ment, management, or technology and management in the time remaining, students should already have completed at least 12 semester hours of required coursework in that specialization. If all coursework for the primary specialization is not completed by the end of summer 2001, credit earned in courses designated HRM T, M GM T, and TM GT may be applied toward a primary specialization in either business and management or management studies. All requirements of the new specialization must be met. Students are urged to consult their team counselor for further information on courses and options.

A description of the curriculum begins on $p .18$. Descriptions of other management-related curricula may be found on the following pages: accounting (p. 16), environmental management (p. 31), fire science (p. 32), health services management ( p .34 ), hotel and restaurant management ( p .37 ), management (p.41), management studies (p.43), and technology and management (p. 48).

## BM GT 110

## Introduction to Business and M anagement (3)

(For students with little or no business background.) A survey of the field of business management. Topics include human relations, technology in business, ethical behavior, the environment, global and economic forces, organization, quality, products and services, functional management, and current issues and developments. Core elements of entrepreneurship, strate gic planning, business management, teamwork, communication, information systems, marketing, law, accounting and budgeting, and financial management are explored.

BM GT 230

## Business Statistics (3)

Prerequisite: M ATH 107 or equivalent. An introduction to probabilistic and statistical concepts (including descriptive statistics, set-theoretic development of probability, the properties of discrete and continuous random variables, sampling theory, estimation, hypothesis testing, regression, and decision theory), followed by the application of these concepts to solving problems in business and management. Students may receive credit for only one of the following courses: BEH S 202, BEHS 302, BM GT 230, ECON 321, GNST 201, M GM T 316, PSYC 200, SOCY 201, or STAT 400.

BM GT 324
H ome-Based Business (1)
(Formerly BM GT 398F.) An introduction to the concept of the homebased business as a small business. Topics surveyed include the costs and benefits of operating a small home-based business venture and the types of businesses that can be successfully operated from the home. Special considerations and laws that apply to home-based business operations are also covered. Students may receive credit for only one of the following courses: BM GT 324, BM GT 398F, M GM T 324, M GM T 398B, or SBUS 398B.

## BM GT 325

## The Small-Business Plan (1)

(Formerly BM GT 398G.) An introduction to the preparation of a business plan for entry into small business. Topics include locating and using secondary and primary research to prepare a business plan, assessing formats for presenting it, finding sources of assistance in preparing it, writing it, and identifying who should prepare it. Students may receive credit for only on the following courses: BM GT 325, BM GT 398G, M GMT 325, M GM T 330, M GM T 398C, SBUS 200, or SBUS 398C.

## BM GT 327

## Financial Analysis and Planning for Entrepreneurs (1)

(Formerly offered as BM GT 398D .) A foundation in the principles of ratio analysis for owners (or would-be owners) of small businesses. Focus is on reading and interpreting financial statements. M ethods of developing and integrating plans for enhancing profitability and performance are presented and explained. Students may receive credit for only one of the following courses: BM GT 327, BM GT 398D, M GM T 327, M GM T 398J, or SBUS 398A.

## BM GT 332

## 0 perations Research for M anagement D ecisions (3)

Prerequisite: Either BM GT 230, M ATH 220, or equivalent. A survey of the philosophy and techniques of operations research and how it relates to managerial decision making. Techniques covered include linear programming, transportation and assignment models, M arkov processes, and inventory and queuing models. Emphasis is on formulating and solving decision problems in the functional areas of management.

## BM GT 340 <br> Business Finance (3)

Prerequisites: ACCT 221 and BM GT 230. An overview of the principles and practices of organizing, financing, and rehabilitating a business enterprise. Topics include the various types of securities and their usefulness in raising funds; methods of apportioning income, risk, and control; intercorporate relations; and new developments. Emphasis is on solving problems of financial policy that managers face.

## BM GT 343

## Investments (3)

Prerequisite: BM GT 340. An introduction to financial investments. Topics include securities and securities markets; the risks of investments, as well as returns and constraints on investments; portfolio policies; and institutional investment policies.

## BM GT 345

## Property and Liability Insurance (3)

Prerequisites: ACCT 221 and BM GT 230. Analysis of the major types of property and casualty insurance, including fire, indirect loss, crime, automobile, ocean and inland marine, and liability insurance. Substandard, residual, and reinsurance markets are investigated; current issues are discussed.

## BM GT 346

## Risk Management (3)

Prerequisites: ACCT 221 and BM GT 230. A study focusing on recognizing and evaluating the pure risks facing organizations. Guides for risk-management decisions concerning the retention, control, and transfer of risk (including insurance) are discussed.

## BM GT 347

## Life Insurance (3)

Prerequisite: ACCT 221. A study of the products and principles of life insurance and health insurance in financial planning for businesses. Topics include pension planning strategies, such as deferred-compensation and profit-sharing plans; use of trusts in business and in planning individual estates; and comprehensive analysis of the effects of income taxes, estate taxes, and gift taxes on life-insurance programming and estate planning.

BM GT 350
M arketing Principles and 0 rganization (3)
An introduction to the field of marketing, intended to develop a general understanding and appreciation of the forces, the institutions, and the methods involved in marketing a variety of goods and services. Topics include segmentation, target marketing, positioning, developing new products, pricing, distributing and promoting goods and services, and sales and marketing management. Students may receive credit for only one of the following courses: BM GT 350, M GMT 322, or TM GT 322.

BM GT 353

## Retail Management (3)

Prerequisite: Either BM GT 350, M GM T 322, M GM T 410, or TM GT 322. A review of the organization, location, design, layout, management, and policies of retail stores. Topics include retail planning, administration, operational control, customer behavior, competition, marketing channels, the legal environment, financial planning, merchandise planning and buying, credit policies, pricing, brands, and advertising and promotion. Personal selling, customer service, sales management, strategic planning, human resource management, training, and information technologies commonly applied in retailing are also examined.

## BM GT 354

## Integrated M arketing Communications (3)

(Formerly Promotion M anagement.) Prerequisite: Either BM GT 350, M GM T 322, M GM T 410, or TM GT 322. An in-depth study of promotional activities including advertising, personal selling, sales promotions, and direct marketing (including use of the Internet). Emphasis is on strategic planning of promotional activities to communicate with customers to achieve marketing objectives. The relationship of integrated marketing communications to other elements of promotional activities is also explored. Students may receive credit only once under this course number.

## BM GT 355 <br> Professional Selling (3)

(Formerly BM GT 498B Salesmanship and Selling.) Prerequisite: Either BM GT 350, M G M T 322, or equivalent. A study of the role of selling and sales skills in the modern marketing environment. Types of selling covered include in-store and outside retailing, organizational and industrial sales, trade-show and exhibition sales, consultative sales, and telemarketing. Other topics include the psychology of selling, planning and preparation, time management, profitability analysis, and the entire sales process. Students may receive credit for only one of the following courses: BM GT 355 or BM GT 498B.

BM GT 360

## H uman Resource Management (3)

(Formerly Personnel M anagement.) A basic study of human resource management. M ajor aspects covered are human resource planning and the recruitment, selection, development, compensation, and appraisal of employees. Scientific management and unionism are explored insofar as these historical developments affect the various personnel functions. Students may receive credit only once under this course number and for only one of the following courses: BM GT 360 or TM GT 360.

## BM GT 362

## Labor Relations (3)

A study of the development and methods of organized groups in industry, with reference to the settlement of labor disputes. Labor unions and employer associations involved in arbitration, mediation, and conciliation are analyzed from an economic as well as a legal standpoint. Specific attention is focused on collective bargaining, trade agreements, strikes, boycotts, lockouts, company unions, employee representation, and injunctions.

BM GT 364
M anagement and Organization Theory (3)
A study of the development of theories about management and organizations. Processes and functions of management discussed include the communication process, the role of the manager as an organizer and a director, the determination of goals, and the allocation of responsibilities. Students may receive credit for only one of the following courses: BM GT 364, TEM N 202, TEM N 300, TM GT 301, or TM GT 302.

BM GT 370

## Introduction to Transportation M anagement (3)

(Formerly Principles of Transportation.) Prerequisite: Either BM GT 350, M GMT 322, M GM T 410, or TM GT 322. An examination of transportation as it relates to the movement of people and goods between points. Topics include the roles of the private and public sectors (including deregulation), carrier modes, demand for passenger and freight transportation, transportation pricing, management, contemporary public-policy issues, and managerial strategies in transportation. Students may receive credit only once under this course number.

## BM GT 372 <br> Introduction to Logistics M anagement (3)

(Formerly Traffic and Physical Distribution M anagement.) Prerequisite: Either BM GT 350, M GM T 322, M GM T 410, or TM GT 322. An examination of the operations involved in managing the movement and storage of materials, supplies, work in progress, and finished goods. Topics include the trade-offs between cost and service and between the purchase and supply of raw materials; the warehousing and control of inventory; industrial packaging; materials handling within warehouses; and the distribution of finished goods to customers required to minimize costs, maximize profits, or increase customer service levels. Students may receive credit only once under this course number.

## BM GT 375

## Procurement M anagement (3)

Prerequisite: BM GT 364, M GMT 300, or equivalent. An overview of the procurement process in industry and its strategic importance in the global marketplace. Topics include the purchasing process, requirements planning, pricing analysis, global competition, distribution, and value analysis. Students may receive credit for only one of the following courses: BM GT 375, M GM T 347, M GMT 375, or TEM N 360.

## BM GT 378

## Legal Environment of Business (3)

(Formerly BM GT 480. For students with little or no legal background.) An overview of fundamental legal concepts and principles that affect business in a variety of functional and regulatory environments. Emphasis is on the definition and application of legal principles and concepts through illustrative examples and cases. Primary topics include the interplay among business, ethics, and law and between legal reasoning and research; the judicial system and conflict resolution; and torts and business crimes. Key concepts relating to transactional aspects of business are defined; these include contracts and business organizations, property, and government regulations in the human resource, marketing, and financial dimensions of business. Important global concepts are discussed. Assignments include conducting relevant research using computer databases and networks (such as LEXIS/N EXIS and the W orld Wide Web) as well as other methods for accessing information. Students may receive credit for only one of the following courses: BM GT 378 or BM GT 480.

BM GT 380

## Business Law I (3)

(Strongly recommended for students seeking careers as CPAs, lawyers, or managers.) An in-depth conceptual and functional analysis and application of legal principles relevant to the conduct and understanding of commercial business transactions. Topics include the legal, ethical, and social environment of business; agencies, partnerships, and other forms of business organizations; and contracts and sales agreements. Salient legal aspects of international business are also discussed. Assignments include conducting relevant research using computer databases and networks (such as LEXIS/N EXIS and the W orld Wide Web) as well as other methods for accessing information.

## BM GT 381

## Business Law II (3)

(Strongly recommended for students seeking careers as CPAs, lawyers, or managers.) Prerequisite: BM GT 380. Further indepth conceptual and functional analysis and application of legal principles relevant to the conduct and understanding of commercial business transactions. Topics include personal and real property; bailments, wills, trusts, and estates; government regulations affecting employment and marketing; negotiable instruments; debtor/creditor relationships; and bankruptcy and reorganization. Salient legal aspects of international business are also discussed. Assignments include conducting relevant research using computer databases and networks (such as LEXIS/N EXIS and the World Wide Web) as well as other methods for accessing information.

## BM GT 385

## Production and 0 perations $M$ anagement (3)

Recommended: Either BM GT 230, M GM T 316, or equivalent. An overview of the operations of manufacturing and service enterprises, concentrating on production management, planning, and control. Topics include demand forecasting, materials planning and control, and capacity planning. C ase studies are examined to analyze the manufacturing and service environments in terms of operational planning, the use of teams, teamwork, and decision making regarding problems commonly confronting managers and supervisors. Fundamentals of the analytical method are introduced early to help solve problems in the design, operation, and control of systems. Students may receive credit only once under this course number and for only one of the following courses: BM GT 385, M GM T 340, M GST 318, or TEM N 318.

BM GT 388

## Customer C onsultation and Needs Analysis (3)

A study of customer consultation and needs analysis for the front-line supervisor of customer service personnel. Issues such as working with internal staff and external customers to develop effective processes, procedures, and ongoing communication are explored. Focus is on establishing and maintaining a high level of customer satisfaction and loyalty. Skills covered include conducting formal and informal needs analysis and recommending improvements such as training, documentation, job aids, and electronic performance support systems; documenting and securing agreement on requirements and commitments; developing the flow of communication and work processes to ensure quality of service; designing and delivering presentations; and creating customer satisfaction surveys and suggesting service improvements.

## BM GT 392

## International Business M anagement (3)

(Fulfills the international perspective requirement.) Prerequisite: Either BM GT 364, M G M T 300, TM GT 302, or equivalent. A survey of international business management examined in the context of the increasing economic interdependence of nations and current economic, political, cultural, business, and managerial issues that have transnational significance. O verall concern is to clarify how the global economic, political, and cultural environment affects domestic and international businesses and public policy decisions. C ase studies are used to analyze international trade, intercultural communication and management issues, strategic planning, business diplomacy, marketing and competition, human resources, international operations, and finance. Students may receive credit for only one of the following courses: BM GT 392, M GM T 305, or TM GT 390.

## BM GT 393

## Real Estate Principles I (3)

(D esigned to fulfill the requirements for the $M$ aryland licensing examination to sell real estate.) Prerequisite: ECON 203 or ECON 205. A survey of the principles, definitions, and uses of real estate. Topics include real estate as a business, problems of construction and home ownership, city planning, and public control and ownership of real estate.

## BM GT 394

## Real Estate Principles II (3)

(Formerly BM GT 398H. Designed to fulfill the requirements for the M aryland licensing examination to sell real estate.) Prerequisite: BM GT 393 or equivalent. A continuation of the study of real estate. Topics include principles, definitions, professional issues and problems, construction and ownership problems, and other major aspects of real estate sales. Students may receive credit for only one of the following courses: BM GT 394 or BM GT 398H .

## BM GT 395

## Customer Service M anagement (3)

(Formerly BM GT 398A.) A study of customer services accompanying a core product and the service products themselves. Problems and issues related to the service mix, servicelevel decisions, the formulation of service policies, customer service management, the development of customer service staff, training, and evaluation are analyzed. Discussion covers customer information, customer surveys and suggestions, the handling of complaints and adjustments, techniques for dealing with difficult and angry customers, dissemination of information, credit services, maintenance, technical service, and the development of new programs. Students may receive credit for one of the following courses: BM GT 395, BM GT 398A, M GMT 395, or M GMT 398A.

## BM GT 398

## Special Topics in Business and Management (1-3)

Intensive inquiry into special topics in business and management that reflect the changing needs and interests of students and faculty. $M$ ay be repeated to a maximum of 6 credits when topics differ.

BM GT 398B
Issues in Nonprofit M arketing (1)
An introduction to key issues in nonprofit marketing. Topics include nonprofit marketing issues related to constituencies, planning, products and services, membership, and promotion.

BM GT 3980

## Marketing on the Internet (1)

An overview of the Internet as a promotional vehicle for inducing sales or generating sales leads. Topics include the role of electronic commerce in the marketing mix, the advantages of using the Internet as a marketing tool, the ethical and legal constraints of Internet marketing, and creative strategies for implementing Internet marketing campaigns. Current publications, online computer exercises, and class discussions are used to examine marketing via the Internet. Students may receive credit for only one of the following courses: BM GT 3980 , BM GT 398R, M GM T 3980 , or M GMT 398R.

## BM GT 398R

## C omputer Applications in Marketing (3)

(Formerly Electronic M arketing and Commerce.) Prerequisites: Either BM GT 350, M GM T 322, M GM T 410, or TM GT 322, and one course involving the use of computer applications or equivalent computer experience. An explora tion of how computer applications, electronic databases, and the World Wide Web enhance the marketing process and create relationships with customers. An overview of and limited hands-on experience with software packages and Web tools used by marketing practitioners are provided. Topics include the use of the computer in developing marketing strategy, conducting market research, and making marketing-mix decisions. Emphasis is on the Internet as a marketing communications tool; creative approaches to home page design are included. Use of the computer to measure the effectiveness of marketing efforts is also covered. Students may receive credit only once under this course number and for only one of the following courses: BM GT 3980, BM GT 398R, M GM T 3980 , or M GM T 398R.

## BM GT 398U

## M arketing Public Relations (3)

(Formerly Public Relations Applications.) Prerequisite: Either BM GT 350, M GM T 322, M GM T 410, or TM GT 322. An in-depth study of how public relations has evolved from a corporate communications function to its current expanded role in the achievement of marketing and sales objectives. Discussion covers the theoretical basis of marketplace forces driving the growth of marketing public relations and how these forces can be used to create value for customers. Topics include planning marketing public relations as part of a firm's overall inte grated marketing strategy and using marketing public relations to reinforce advertising messages and launch new products. Special events marketing, sports marketing, public service programming, and cause-related marketing are also discussed. C ase studies are used to assess the impact of both proactive and reactive marketing on public relations strategies. Experience with basic public relationstechniques is provided in areas such as writing news, planning special events, and generating publicity and other multimedia communications used by public relations practitioners. Students may receive credit only once under this course number.

BM GT 440

## Financial Management (3)

Prerequisite: BM GT 340. Analysis and discussion of the financial decisions of national and multinational corporations, based on case studies and reading. Financial principles and concepts are applied to solve financial problems and make financial and corporate policy at the executive level. Topics include assessment of the financial health of the organization, short- and long-term financial management, project and company valuation, cost of capital, risk analysis, investment decisions, and capital markets.

## BM GT 443

## Security Analysis and Valuation (3)

Prerequisite: BM GT 343. A study of concepts, methods, models, and empirical findings. Theory is applied to the analysis, valuation, and selection of securities, especially common stock.

## BM GT 444

## Futures C ontracts and 0 ptions (3)

Prerequisite: BM GT 343. A study of the institutional features and the economic rationale underlying markets in futures and options. Topics include hedging, speculation, structure of futures prices, interest-rate futures, efficiency in futures markets, and stock and commodity options.

## BM GT 445

## Commercial Bank Management (3)

Prerequisites: BM GT 340 and ECON 430. An analysis and discussion of cases and readings in commercial bank management. The loan function and the management of liquidity reserves, investments for income, and sources of funds are discussed. The objectives, functions, policies, organization, structure, services, and regulations of banks are considered.

## BM GT 446

## International Finance (3)

(Fulfills the international perspective requirement.) Prerequisite: BM GT 340 or equivalent. Analysis and discussion of financial management issues from the perspective of the multinational firm. Topics include the organization and functions of foreign exchange and international capital markets, international capital budgeting, financing foreign trade, and designing a global financing strategy. Emphasis is on how to manage financial exchange and political risks while maximizing benefits from global opportunities faced by the firm.

## BM GT 451

## Consumer Analysis (3)

Prerequisite: BM GT 350 or M GM T 322; PSYC 100 or PSYC 221 recommended. An overview of the increasing importance of American consumers in the marketing system and the importance of understanding them. The foundations of consumer behavior (such as economic, social, psychological, and cultural factors) are examined. Consumers are analyzed in marketing situations as buyers and users of products and services, and in relation to the various social and marketing factors that affect their behavior. The influence of welldirected communications is also considered. Students may receive credit for only one of the following courses: BM GT 451 or CNEC 437.

## BM GT 452

## M arketing Research M ethods (3)

Prerequisites: BM GT 230 or M GM T 316, and BM GT 350 or M GM T 322. A study of the specialized fields of marketing research as it is used to identify market needs, profile target markets, test promotional efforts, and measure the effectiveness of marketing plans. Procedures for planning survey projects, designing statistical samples, tabulating data, and preparing reports are covered. Scientific methods of acquiring, analyzing, and interpreting data are introduced and practiced.

## BM GT 453

## Business M arketing (3)

(Formerly Industrial M arketing.) Prerequisite: BM GT 350, M G M T 322, M GM T 410, or TM GT 322. An examination of the basic marketing functions applied to business and government sectors rather than individual consumers. Topics include planning and introducing products, analyzing and forecasting markets, developing and using channels, pricing and planning promotional strategies, and managing a sales force and business marketing. Students may receive credit only once under this course number.

## BM GT 454

## Global M arketing (3)

(Formerly International M arketing. Fulfills the international perspective requirement.) Prerequisite: BM GT 350 or equivalent. An in-depth study of marketing principles as they relate to the global marketplace. Emphasis is on understanding the influence of internationalization on the economy, the competitive pressures on the intensifying global markets, and the development of marketing plans tailored to reach international and global markets. Topics include the political, economic, legal, regulatory, and sociocultural trends affecting international marketing, the dynamic environments in which global marketing strategies are formulated, and the challenge of implementing marketing programs leading to competitive advantage. Students may receive credit only once under this course number.

## BM GT 455

## Sales M anagement (3)

Prerequisite: BM GT 350. An overview of the role of the sales manager, both at headquarters and in the field, in managing people, resources, and functions of marketing. The problems of organizing, forecasting, planning, communicating, evaluating, and controlling sales are analyzed. Q uantitative techniques and pertinent concepts of behavioral science are applied to the management of the sales effort and of the sales force.

## BM GT 456

## Advertising (3)

Prerequisite: BM GT 350. An exploration of the role of advertising in the American economy. Analysis covers the effects of advertising on economic and social life; the methods and techniques that advertising practitioners use; the role of newspapers, magazines, and other media in developing an advertising campaign; modern methods of research to improve the effectiveness of advertising; and the organization of the advertising business.

BM GT 457

## Marketing Policies and Strategies (3)

Prerequisites: BM GT 350 and one other marketing course. A study of integrative decision making in marketing, with case studies. The use of appropriate decision models is stressed, along with the analysis of consumers and markets.

BM GT 460

## H uman Resource M anagement: Analysis and Problems (3)

Prerequisite: BM GT 360 or equivalent. A study of the role of human resource management in the strategic planning and operation of organizations, performance appraisal systems, and compensation and labor-management issues. The influence of federal regulations, including equal opportunity, sexual harassment, discrimination, and other employeerelated regulations, is analyzed. The critical evaluation of human resource problems is supported with a review of research findings, readings, discussions, case studies, and applicable federal regulations.

## BM GT 461

## Entrepreneurship (3)

A study of the process of creating new ventures for small business and corporate entities. The skills, concepts, knowledge, and attitudes considered essential for starting a business are discussed. Procedures for evaluating the opportunity and financing requirements and for developing the entrepreneurial team are explained. Topics include developing entrepreneurial ideas and innovations, analyzing and forecasting sales, making business plans and strategies, monitoring financial performance, considering ethical issues, and managing growth, decline, and harvest situations. Students may receive credit only once under this course number and for only one of the following courses: BM GT 461 or M GM T 461.

BM GT 463

## Public-Sector Labor Relations (3)

Prerequisite: BM GT 362 or equivalent. A study of the development and structure of labor relations in public-sector employment. The responses of federal, state, and local governments to unionization and collective bargaining are analyzed.

## BM GT 464

## Organizational Behavior (3)

Prerequisite: BM GT 364 or equivalent. An examination of research and theory on the forces underlying the way members of an organization behave. Topics include the behavior of work groups and supervisors, intergroup relations, employees goals and attitudes, problems in communication, the circumstances of change in an organization, and the goals and the design of an organization.

## BM GT 465

## Organization D evelopment and Change (3)

Prerequisite: Either BM GT 364, M GM T 300, or equivalent. An introduction to a method of making organizations and individuals more adaptive and productive. The objective is to help organizations cope with change. Techniques of intervention (such as team building, process consultation, feedback, and conflict resolution) are introduced and explained. Students may receive credit for only one of the following courses: BM GT 465, M GMT 398K, M GM T 465, or TM GT 350.

## BM GT 468

## Employment Law for Business (3)

(Formerly BM GT 462.) A conceptual and functional analysis of the legal framework and principles of industrial and employment relations, with special emphasis on discrimination in the workplace. Primary topics include wrongful discharge; discrimination based on race, sex, age, and disability; testing and performance appraisal; labor/management issues; and employee benefits. Salient global issues are also examined. Assignments include conducting relevant research using computer databases and networks (such as LEXIS/N EXIS and the W orld Wide Web) as well as other methods for accessing information. Students may receive credit for only one of the following courses: BM GT 462 or BM GT 468.

## BM GT 482

## Business and Government (3)

(Fulfills the historical and international perspective requirements.) A study of the role of government in the modern economy and the intricate relationships between the public and private sectors. Emphasis is on the regulatory and public policy dimensions of government intervention, the promotion of business, and corporate responses to government action in the changing domestic and global marketplaces. Students may receive credit for only one of the following courses: BM GT 482 or TM GT 340.

## BM GT 495

## Business Policies and Strategic M anagement (3)

(Intended as a final, capstone course to be taken in the senior year of study.) Prerequisite: Either BM GT 364, M G M T 300, or equival ent. An overview of general management and the continuous, systematic process of managerial planning, including environmental scanning and the development of plans and strategies to gain competitive advantage. Tactical and strategic management issues are highlighted by means of case studies, projects, and discussion. Access to spreadsheet software is recommended to analyze case studies and develop strategic planning information, charts, and graphs. Students may receive credit for only one of the following courses: BM GT 495, H M GT 430, M GMT 495, or TM GT 380.

## BM GT 496

## Business Ethics and Society (3)

(Fulfills the international perspective requirement.) A study of the relationship of business ethics and social responsibility in both domestic and global settings. Ethical and moral considerations of corporate conduct, social responsibilities, policies, and strategies are explored. Emphasis is on the definition, scope, application and analysis of ethical values as they relate to issues of public consequence in both the domestic and global environments.

BM GT 4980

## The Global Manager and Public Policy (3)

Prerequisite: Either BM GT 392, M G M T 305, TM GT 390, or equivalent. An examination and analysis of key public policy issues in the international arena that have an impact on the decisions of the global manager. Topics span the functional aspects of business, including global marketing, finance, management, human resource management, law, and technology transfer. Students may receive credit for only one of the following courses: BM GT 4980 or M GM T 4980.

## CAREER PLANNING

## C ourses in career planning (designated CAPL) may be applied toward

- supporting credit for certain appropriate primary or secondary specializations as approved by a counselor; and
- electives


## CAPL 171

## Personal Career Planning and D evelopment (3)

An overview of career-development theories, designed to provide a foundation for the analysis of personal career decisions. Vocational-interest and personality tests are administered and interpreted. Topics include the assessment of career-related skills, interests, and values, as well as ways to use various research methods and career-related materials. Decisionmaking and job-search strategies for writing résumés, interviewing, and identifying employers are discussed. Students may receive credit for only one of the following courses: CAPL 171 or EDCP 108D.

## CHEMISTRY

## Courses in chemistry (designated CHEM) may be applied toward

- the general education requirement in the biological and physical sciences; and
- electives.

The two approved sequences are as follows:

| Sequence I | Sequence II |
| :--- | :--- |
| CHEM 103 | CHEM 103 |
| (inorganic I) | (inorganic I) |
| CH EM 104 | CH EM 113 |
| (organic I) | (inorganic II) |
|  | CHEM 233 |
|  | (Organic I) |
|  | CHEM 243 |
|  | (organic II) |

Sequence I is for students whose programs require one year of chemistry. Sequence II is for students who need a full year of organic chemistry and a year of inorganic chemistry, or who plan to do advanced work in chemistry.

CHEM 103 General Chemistry I (4)
(T he first semester of a rigorous two-semester sequence for students whose curricula require a year or more of chemistry. Fulfills the laboratory science requirement. Lab fee required.) Prerequisite: M ATH 110; M ATH 115 recommended. Introduction to the nature and composition of matter, elements, inorganic compounds, and chemical calculations. Students may receive credit for only one of the following courses: CH EM 102, CHEM 103, CHEM 105, or CHEM 107.

CHEM 113
G eneral Chemistry II (4)
(Fulfills the laboratory science requirement. Lab fee required.) Prerequisite: CHEM 103 or CH EM 105. A study of kinetics; homogeneous, heterogeneous, and ionic equilibria; oxidation/ reduction reactions; electrochemistry; and chemistry of the elements. Students may receive credit for only one of the following courses: CHEM 113 or CHEM 115.

## CHEM 233 <br> Organic Chemistry I (4)

(The first course of a two-semester sequence in organic chemistry; intended to be followed by CHEM 243 or CH EM 245. Fulfills the laboratory science requirement. Lab fee required.) Prerequisite: CHEM 113 or CH EM 115. Extensive, systematic analysis of the chemistry of carbon, including aliphatic compounds, aromatic compounds, stereochemistry, arenes, halides, alcohols, esters, and spectroscopy. Students may receive credit for only one of the following courses: CH EM 104, CH EM 233, or CHEM 235.

CHEM 243
0 rganic Chemistry II (4)
(A continuation of CHEM 233. Fulfills the laboratory science requirement. Lab fee required.) Prerequisite: CH EM 233 with a grade of C or better. Further study of organic chemistry with emphasis on molecular structure, substitution reactions, carbonium ions, aromaticity, synthetic processes, and macromolecules. Students may receive credit for only one of the following courses: CHEM 243 or CHEM 245.

## COMMUNICATION STUDIES

## All courses in communication studies (designated COM M ) may be applied toward

- a primary or a secondary specialization in communication studies; and
- electives.

COM M 390, 393, and 394 (as well as EN GL 303, 391, and 396, and PLGL 401) are designated as writing intensive and may be applied toward the general education requirement in upper-level intensive writing.

COM M 380, 395, 490, 491, 492, 493, 494, and 495 may be applied toward the general education requirement in communications, but not toward the general education requirement in upper-level intensive writing.

COM M 393 and 394 may be applied toward supporting credit for a primary or a secondary specialization in business and management, computer science, computer and information science, computer information technology, computer studies, health services management, information systems management, management, management studies, and other areas as approved by a counselor.

A description of the curriculum begins on p. 23. Other writing, as well as literature, courses are available under the discipline of English.

COMM 293

## Technical Report Writing (3)

(Formerly EN GL 293. Fulfills the general education require ment in communications.) Prerequisite: EN GL 101 or equivalent. An introduction to the process of technical writing. Discussion covers conducting audience and needs analyses; organizing and writing clear, precise, grammatically correct technical prose; and producing a variety of routine technical reports and correspondence. Students may receive credit for only one of the following courses: COM M 293 or EN GL 293.

COMM 380

## Language in Social C ontexts (3)

(Fulfills the general education requirement in communications but is not a writing course. Fulfills the historical and international perspective requirements.) Prerequisite: EN GL 101 or equivalent. An examination of the linguistic components of languages, with special emphasis on the English language, its origins, continued development, and use in speaking and writing. C ategories of speech and methods of written communication are examined from the perspective of regional and social variation. Cultural, gender, and racial variations are discussed along with underlying perspectives and assumptions. Exercises include some basic linguistic analysis.

COMM 390

## Writing for M anagers (3)

(Formerly H U M N 390. Fulfills the general education requirement in intensive upper-level writing.) Prerequisite: EN GL 101 or equivalent. A practicum in the kinds of writing skills that managers need for the workplace. Communication skills emphasized include planning information, developing reader-based prose, improving personal writing performance and guiding the writing of subordinates, and mastering such writing tasks as strategic plans and performance appraisals. Students may receive credit for only one of the following courses: COM M 390, H UM N 390, or M GST 161.

## COMM 393

## Technical Writing (3)

(Formerly EN GL 393. Students for whom English is a second language should consider taking COM M 393X instead. Fulfills the general education requirement in intensive upperlevel writing.) Prerequisite: EN GL 101 or equivalent. The writing of technical papers and reports. Instruction focuses on building skills in critical thinking, research, and document design. Assignments include composing a total of 6,000 words (approximately 25 pages) in various formats (e.g., the oral presentation, the résumé, correspondence, manuals, procedures, instructions, and different types of reports, including proposal, progress, feasibility, and analytic). Students may receive credit for only one of the following courses: COM M 393 or EN GL 393.

## COMM 393X

## Technical Writing (3)

(Formerly EN GL 393X. Enrollment restricted to students for whom English is a second language. Fulfills the general education requirement in intensive upper-level writing.) Prerequisite: EN GL 101X or equivalent. The writing of technical papers and reports. Instruction focuses on building skills in critical thinking, research, and document design. Assignments include composing a total of 6,000 words (approximately 25 pages) in various formats (e.g., the oral presentation, the résumé, correspondence, manuals, procedures, instructions, and different types of reports, including proposal, progress, analytic, and feasibility). Students may receive credit for only one of the following courses: CO M M 393X or EN GL 393X.

COMM 394

## Business Writing (3)

(Formerly EN GL 394. Students for whom English is a second language should consider taking CO M M 394X instead. Fulfills the general education requirement in intensive upperlevel writing.) Prerequisite: EN GL 101 or equivalent. An introduction to the various dimensions of effective business communication. Focus is on strategies for conveying ideas and information, regardless of format (e.g., executive summary, promotional flier, or claims-adjustment correspondence). Issues of purpose, audience, and style are covered. Information about current issues and trends in business communication is provided through coverage of communication productivity and technologies. Assignments include composing a total of 6,000 words (approximately 25 pages). Students may receive credit for only one of the following courses: COMM 394 or ENGL 394.

COMM 394X
Business Writing (3)
(Formerly EN GL 394X. Enrollment restricted to students for whom English is a second language. Fulfills the general education requirement in intensive upper-level writing.) Prerequisite: EN GL 101 or equivalent. An introduction to the various dimensions of effective business communication. Focus is on strategies for conveying ideas and information, regardless of format (e.g., executive summary, promotional flier, or claimsadjustment correspondence). Issues of purpose, audience, and style are covered. Information about current issues and trends in business communication is provided through coverage of communication productivity and technologies, Assignments include composing a total of 6,000 words (approximately 25 pages). Students may receive credit for only one of the following courses: COM M 394X or ENGL 394X.

## COMM 395

## Writing in the Health Professions (3)

(Formerly EN GL 395. Fulfills the general education require ment in communications.) Prerequisite: EN GL 101 or equivalent. An introduction to a broad spectrum of writing in the health professions: brochures; fact sheets; medical, insurance, and health reports; and articles for newspapers, magazines, and scientific journals. Students may receive credit for only one of the following courses: COM M 395 or ENGL 395.

COMM 490

## Seminar in Technical Communication (3)

(Formerly EN GL 489A. Fulfills the general education require ment in communications.) Prerequisite: COM M or ENGL 393, COM M or EN GL 394, or equival ent experience. An exposition of current issues and methods in creating, maintaining, storing, and revising technical information. Topics include the review of textual and online resources useful to technical communicators and the requirements for a professional portfolio. Emphasis is on professional communication practices. Assignments include oral presentations. Students may receive credit only once under this course number and for only one of the following courses: COM M 490 or EN GL 489A.

## COMM 491

## Technical Editing (3)

(Formerly EN GL 489B. Fulfills the general education requirement in communications.) Prerequisite: EN GL 278F or equivalent. A systematic approach to methods of preparing a document for publication or other disseminations. The full range of editing levels is addressed: copyediting, substantive editing, and document design. An overview of design goals that reflect specific readers and purposes is included. Students may receive credit for only one of the following courses: COM M 491 or ENGL 489B.

## COMM 492

## Proposal Writing (3)

(Formerly EN GL 489C. Fulfills the general education requirement in communications.) Prerequisite: EN GL 393, EN GL 394, or equival ent. An advanced study of technical writing, focusing on the structures and formats of competitive proposals (transmittal letter, résumé, plan, executive summary, illustrations, and tables). An actual proposal-development cycle is simulated and followed through the stages of issuance and modification of the request for proposal (RFP), the bidders' conference, red-team reviews, the best and final offer (BAFO), and evaluation and contract award by a source board. Assignments include working in teams to prepare competitive proposals in response to an RFP from the federal government. Students may receive credit for only one of the following courses: COM M 492 or ENGL 489C.

## COMM 493

## Graphics/Text Integration (3)

(Fulfills the general education requirement in communications, but is not a writing course.) Recommended: Familiarity with computers and desktop publishing. An examination of the seamless integration of text and the full spectrum of graphics used in communications. Topics include techniques for creating meaningful design concepts, editing text to enhance the graphics, designing creative page layouts, and making the most of desktop publishing capabilities and tools. $H$ ands-on experience with desktop publishing programs is provided.

## COMM 494

## Publishing a Newsletter (3)

(Fulfills the general education requirement in communications.) Prerequisites: EN GL 101 or equivalent, and basic computer skills. The planning, writing, designing, and production of newsletters for various publics. Concepts are pre sented for targeting writing to specific audiences, improving readability, and for using typography and design effectively. N ewsletter formats and the application of desktop publishing to newsletter layout and design are covered. Commercial printing is also discussed. Requirements include writing several articles and participating in a group project. Students may receive credit only once under this course number.

COMM 495

## Seminar in Workplace Communication (3)

(Fulfills the general education requirement in communications.) Prerequisite: A 300 -level writing course. A seminar on workplace communication issues, strategies, and skills. A case-study approach is followed in planning and writing a variety of corporate documents. Emphasis is on enhancing advanced-level writing skills. Assignments also include oral presentations.

## COMM 496

## Writing for the C omputer Industry (3)

(Fulfills the general education requirement in communications.) Prerequisites: EN GL 101 or equivalent and basic computer skills. Study of and practice in the designing, writing, testing, publishing, and maintaining of effective user documentation as well as other software development documents. The assumption is made that software tools, as well as their documentation, should relate directly to user tasks. Emphasis is on the difference between writing successfully for publication on paper and for display on the computer screen. Students may receive credit only once under this course number.

## COMPUTER AND INFORMATION SCIENCE

Courses in computer and information science (designated CMIS) may be applied toward

- the general education requirement in computing;
- a primary or a secondary specialization in computer and information science, computer information technology, or computer studies;
- supporting credit for a primary or a secondary specialization in other computer-related fields, business and management, management, management studies, technology and management, the social sciences, and other areas as approved by a counselor; and
- electives.

Students without recent experience in problem solving with computers must take CM IS 102. It is recommended that for the first two semesters students should not take two (or more) courses that involve programming. The suggested sequence of courses (for students who al ready have the prerequisite knowledge for CM IS 140) is C M IS 140 and 160 in the first semester followed by CM IS 240 and CM IS 310 in the second.

A description of the curriculum begins on $p .25$. Descriptions of other computer-related curricula may be found on the following pages: computer information technology (p. 26), computer science (p. 27), computer studies (p. 27), and information systems management (p. 40).

## CM IS 102

## Problem-Solving Techniques (3)

(D oes not fulfill the general education requirement in computing. M ay not be applied to a primary specialization in computer and information science.) A discussion of several common methods for obtaining solutions to problems. Various designs and techniques, including the development of algorithms, are presented. Lab sessions include writing, compiling, and executing simple C + programs.

## CM IS 140

## Introductory Programming in C ++ (3)

(N ot open to students who have completed CM IS 315. The first in a sequence of courses in $\mathrm{C}+$.) Prerequisite: CM IS 102 or equivalent knowledge. A study of selected elements of the syntax and semantics of the $\mathrm{C}+$ programming language. The discipline, methodologies, and techniques of software development are studied, including the development of algorithms and their implementation through programming projects in $\mathrm{C}+$.

## CMIS 160

## D iscrete $M$ athematics for Computing (3)

(N ot open to students who have completed CM SC 150.) Prerequisite: M ATH 107 or equivalent. An introduction to discrete mathematical techniques used for solving problems in the field of computing. Basic principles from areas such as sets, relations and functions, logic, proof methods, and recursion are examined. Topics are selected on the basis of their applicability to typical problems in computer languages and systems, databases, networking, and software engineering.
CMIS 211

## Assembly Language Programming (3)

Prerequisite: CM IS 140, CM IS 150, or equivalent. Discussion of assemblers, loaders, linkage editors, and macros. Programming projects in assembly language are included.

## CMIS 240

## D ata Structures and Abstraction (3)

Prerequisite: CM IS 140; taking CM IS 140 and 240 in consecutive semesters is recommended. Presentation of and practice in additional features of $\mathrm{C}+$. Concepts and techniques of data abstraction and data structures are studied. Topics include structuring, storing, and accessing data; using sort/merge methods; and updating, deleting, and inserting records in data structures such as linked lists and trees. Students may receive credit for only one of the following courses: CMIS 240 or CMIS 315.

CMIS 305

## Introduction to Ada (3)

(The first course in a sequence with CM IS 405.) Prerequisite: CM IS 240, CM IS 250, or equivalent. An introduction to the design and coding of basic Ada programs by using techniques of data type abstraction, information hiding, and modularization. Topics include access types, discriminated types, aggregates, model numbers, scope and visibility, and predefined packages and types. Students may receive credit for only one of the following courses: CM IS 305 or CM SC 130.
CMIS 310

## Computer Systems and Architecture (3)

(Formerly CM IS 270. N ot open to students who have completed CM SC 311.) Prerequisites: CM IS 140 (or CM IS 150) and CMIS 160. A study of the fundamental concepts and interrelationships of computer architecture and operating systems and the functional approach to components of a computer system. Students may receive credit for only one of the following courses: CM IS 270, CM IS 310, CM SC 311 , or IFSM 310.

## CMIS 315

## Programming and Application in C ++ (3)

Prerequisite: A two-semester sequence in a programming language other than $\mathrm{C}+$ or equivalent experience. A one semester study of programming in $\mathrm{C}+$. Programming projects in C + are included. Successful completion of CM IS 315 is equivalent to successfully completing both CM IS 140 and CM IS 240. Students may receive credit for only one of the following courses: CM IS 240 or CM IS 315.
CM IS 320

## Relational D atabases (3)

Prerequisite: CMIS 140 or CMIS 150; CM IS 310 recommended. A study of the functions and underlying concepts of relationally organized database systems. The description and application of data models to database systems are discussed. The entity/relationship (E/R) model and Codd's relational theory-including relational algebra, normalization and integrity constraints, and the SQ L language- are emphasized. Physical design and data administration issues are addressed. Projects include hands-on work with E/R and relational models. Students may receive credit for only one of the following courses: CM IS 320 or IFSM 410.

CMIS 325

## UNIX with Shell Programming (3)

Prerequisite: CM IS 140, CM IS 150, or equivalent. A study of features of the UNIX operating system. Shell programming is presented and practiced to interrelate system components. Projects give practical experience with the system. Students may receive credit only once under this course number.

## CM IS 330

## Software Engineering Principles and Techniques (3)

Prerequisite: CM IS 240, CM IS 250, or CM IS 315; CM IS 310 recommended. A study of the process of software engineering from initial concept through design, development testing, and maintenance to retirement of the product. D evelopment lifecycle models are presented. Issues in configuration management, integration and testing, software quality, quality assurance, security, fault tolerance, project economics, operations, human factors, and organizational structures are considered. Students may receive credit for only one of the following courses: CM IS 330 or CM IS 388A.

## CM IS 345

## O bject-O riented Design and Programming (3)

Prerequisite: CMIS 240 or 315 , or equivalent. An examination of the principles, practices, and applications of programming in an object-oriented environment. Techniques and language features of object-oriented design are implemented in programming projects. Students may receive credit only once under this course number.

## CM IS 370

## D ata Communications (3)

Prerequisite: C M IS 310 or equivalent. Investigation of the effects of communication technology on information systems. M ajor topics include components of communication systems, architectures and protocols of networks, security measures, regulatory issues, and the designing of network systems. I ssues and applications in local area networks and communication services are covered. Students may receive credit for only one of the following courses: CM IS 370, CM SC 370, or IFSM 450.

## CM IS 415

## Advanced UNIX and C (3)

Prerequisites: CM IS 240 (or CM IS 315) and CM IS 325; CMIS 310 recommended. An investigation of the interaction between the UNIX operating system and the C programming language. The features of UNIX that support C, including library and system calls, UNIX utilities, debuggers, graphics, and file structure, are presented. Programming projects in C that implement UNIX command features are assigned.

## CM IS 420

## Advanced Relational D atabases (3)

Prerequisite: CM IS 320 or equivalent. A study of advanced logical and physical design features and techniques of relational databases appropriate to the advanced end user, database designer, or database administrator. Topics include object-relational concepts, data modeling, challenge areas, physical design in relation to performance, and relational algebra as a basis of optimizer strategies. Future trends, advanced concurrency control mechanisms, and maintenance issues such as schema restructuring are addressed. Projects include hands-on work that involves designing and implementing a small database, creating triggers, loading through forms and utility, querying through interactive and embedded SQL, restructuring schema, and analyzing performance.

## CM IS 435

## Computer Networking (3)

Prerequisite: CMIS 370 or equivalent. An overview of communications topics such as signaling conventions, encoding schemes, and error detection and correction. Emphasis is on routing protocols for messages within various kinds of networks, as well as on methods that network entities use to learn the status of the entire network. Students may receive credit for only one of the following courses: CM IS 435 or CM SC 440.

## CM IS 445

## D istributed Systems (3)

Prerequisites: CMIS 310 and 325, or equival ent. An exploration of protocols and methods for allocating to more than one processor various parts of the work associated with a single task. Emphasis is on environments such as array processing, parallel processing and multiprocessor systems, and communication among cooperating processes. Topics include reliability, security, and protection, as well as how these issues affect the development of programs and systems. Projects include programming. Students may receive credit for only one of the following courses: CM IS 445 or CM SC 445.

## CMIS 455

## Requirements D evelopment (3)

Prerequisite: CMIS 330. A study of concepts and techniques for planning and developing high-quality software products. Fundamentals of specification (including formal models and representations, documents, and standards) are examined.
M ethods of specifying and developing requirements for generating software are discussed. Projects using these techniques are included. Students may receive credit only once under this course number.

CM IS 460

## Software D esign and D evelopment (3)

Prerequisite: CMIS 330 or equivalent. An in-depth treatment of the concepts and techniques for designing and developing software for large projects. D esign strategies, principles, methodologies, and paradigms are discussed, as are evaluation and representation. Architectural models and idioms, development tools and environments, implementation guidelines and documentation, and organization of design and development functions are included. Issues of program quality, program correctness, and system integration are addressed. Project work incorporates principles and techniques of software design and development.

## CM IS 465

## Software Verification and Validation (3)

Prerequisite: CMIS 330 or equivalent. A study of tools, methods, and current practices used in assessing the quality and correctness of software. Topics and issues examined include the roles of testing and formal verification, fundamentals and formal models of program verification, planning and documentation for quality assurance, methods of performing technical reviews, strategies of system testing and integration planning, and principles and practices used in conducting tests.

CM IS 498

## Special Topics in Computer and Information Science (3)

Prerequisites: Vary according to topic. A seminar on topics in computer and information science. $M$ ay be repeated to a maximum of 6 credits when topics differ.

## COMPUTER APPLICATIONS

## All courses in computer applications (designated CAPP) may be applied toward

- the general education requirement in computing;
- appropriate secondary specializations (as approved by a counselor);
- supporting credit for a primary or a secondary specialization in other computer-related fields, business and management, information systems management, management, management studies, the social sciences, and certain other areas as approved by a counselor; and
- electives.

Some courses in computer applications may be applied toward a primary specialization in computer information technology or computer studies.

D escriptions of other computer-related curricula may be found on the following pages: computer and information science (p. 25), computer information technology (p. 26), computer science (p.27), computer studies (p. 27), and information systems management (p. 40).

CAPP 103

## Introduction to M icrocomputer Software (3)

An introduction to microcomputers and application software. H ands-on experience with software packages (including word processing, spreadsheets, and databases) is provided. Focus is on concepts, features, and business applications of those facilities.

CAPP 300

## Concepts in Computing (3)

An introduction to the basic principles and techniques of computing. Discussion deals with the effects of computerization on individuals, government, business, and industry; social and ethical issues; concepts of problem solving; and computer hardware. Students may receive credit for only one of the following courses: CAPP 101, CAPP 300, IFSM 201, or TM GT 201.

CAPP 303

## Advanced Features of Microcomputer Application Software (3)

Prerequisite: CAPP 103 or experience with microcomputer application software. A presentation of application software packages that includes advanced features of operating systems, spreadsheets, database management, and electronic information exchange for business applications. Presentation software is reviewed, and hands-on experience with the software is provided.

CAPP 305

## Introduction to Visual Basic Programming (3)

Prerequisite: Experience with the Windows environment and file management. A structured approach to developing programs using the Visual Basic language with W indows. H andson experience in implementing features of this event-driven, visual interface for program design is provided. Programming projects in Visual Basic are included.

CAPP 310

## D esktop Publishing (3)

Prerequisite: Basic familiarity with personal computers and experience with a word-processing or text-editing program. An introduction to concepts and methods of desktop publishing. H ighlights include the design and layout of a publication, the choice of computer hardware and software, the integration of computer graphics, the drafting and editing of a publication, and methods of interfacing with high-level printing equipment to produce a final document. Students may receive credit for only one of the following courses: CAPP 310 or CAPP 398B.

## CAPP 311

## Advanced D esktop Publishing (3)

Prerequisite: CAPP 310 or equivalent experience using PageM aker. A project-oriented study of the concepts and methods of desktop publishing. Techniques for using color in page layouts are implemented. Features essential to multimedia presentations are integrated with techniques for capturing and editing photos to produce business publications.

## CAPP 340

## Computer Applications in M anagement (3)

Prerequisite: CAPP 300 or equivalent. An overview of computer-based information-system concepts and operations and how these capabilities are applied by management to improve the work processes of business, government, and academic organizations. Consideration is also given to management planning at the strategic, tactical, and operational levels necessary to effect continuous improvements. The interchange of electronic information and the application of various computing tools such as spreadsheet programs are introduced. Students may receive credit for only one of the following courses: CAPP 340 or CMIS 350 .

## CAPP 385

## Internet: A Practical Guide (3)

Prerequisite: CAPP 300 or equivalent experience. An introduction to the Internet. Topics include U NIX commands, Telnet, FTP, e-mail, news, and the W orld W ide Web. Common network applications are examined, and hands-on practice is provided. HTM L is introduced. Technological and political issues, along with changes in the role and involvement of the federal government, are considered.

CAPP 386

## Internet: An Advanced Guide (3)

Prerequisite: CAPP 385 or equivalent; access to an Internet service provider is recommended, although not required. An in-depth discussion of the setup and use of graphical browsers for using FTP, Telnet, and Lynx. Technical and social aspects of the Internet and the W orld W ide Web are emphasized. Internet content and access tools are addressed, with a focus on H TM L and JavaScript. Assignments include a published Web page.

## CAPP 390

## Novell NetWare Administrator (3)

(D esigned to help prepare students for the N ovell Certified N etW are Administrator examination.) Prerequisite: Familiarity with DOS, microcomputer hardware architecture, and basic networking concepts. An introduction to the features of a network. LAN configuration, directory structure, drive mapping, and network security are emphasized. Network administration responsibilities are discussed.

CAPP 485

## Issues in Cyberspace (3)

Prerequisites: CAPP 385 and 386 , or equivalent experience using the Internet, the W orld Wide Web, and HTM L authoring tools. A seminar on current topics surrounding the Internet and the World Wide Web. Issues to be discussed are selected from topics such as information literacy, effects of the Internet on the work environment, evaluation of educational delivery methods over the Internet, commercialization of the Internet and the World Wide Web, and effects of government regulation. Emphasis is on privacy and security concerns. Assignments include an individual or group presentation.

## CAPP 498A

## Applications Integration (3)

Prerequisites: CAPP 340 and 386. An overview of the many software programs used in computer and business applications. C ollaboration software, spreadsheets, databases, and presentation software are integrated into a formal presentation via Web browsers and H TML. Focus is on operating systems and environments, file management, and design processes and capabilities. Assignments include individual and group projects.

CAPP 498B

## Advanced Visual Basic Programming (3)

Prerequisite: CAPP 305 or equivalent. An investigation of advanced Visual Basic programming concepts, tools, and methods. Topics include object linking and embedding ( OLE ), dynamic data exchange (DDE), and data access objects (DAO) for interface with other applications and databases. Emphasis is on application design and development. Practical opportunities to design and develop complete applications integrating multiple features of the Visual Basic programming language are provided.

## COMPUTER SCIENCE

## C ourses in computer science (designated CMSC) may be applied toward

- the general education requirement in computing;
- a primary or a secondary specialization in computer science, computer information technology, or computer studies;
- supporting credit for a primary or a secondary specialization in other computer-related fields, business and management, management, management studies, technology and management, and some other areas as approved by a counselor; and
- electives.

A description of the curriculum begins on p. 27. Descriptions of other computer-related curricula may be found on the following pages: computer and information science (p.25), computer information technology (p. 26), computer studies (p. 27), and information systems management (p. 40).

CMSC 130

## Introductory Computer Science (3)

(For students specializing in computer science.) Recommended: CM SC 150 or equivalent. The first in a sequence of courses in Java. Structured programming and concepts in data abstraction are presented and practiced. Verification methodologies are introduced. Students may receive credit for both CM SC 112 and 130, but only once under this course number.

## CMSC 150 <br> Introduction to D iscrete Structures (3)

Prerequisite or corequisite: M ATH 140. A survey of fundamental mathematical concepts involved in computer science. Functions, relations, finite and infinite sets, and propositional logic are explored. Proof techniques presented are those used for modeling and solving problems in computer science. C ombinations, permutations, graphs, and trees are introduced, along with selected applications. Students may receive credit for only one of the following courses: CM SC 150 or CM SC 250.

CMSC 230

## Elementary D ata Structures (3)

(C ontinuation of CM SC 130. For students specializing in computer science.) Prerequisites: CM SC 130 and 150 . Pre sentation and application of additional features of Java. Topics include stacks, queues, links, lists, and binary trees. Students may receive credit only once under this course number and for only one of the following courses: CM SC 135 or CM SC 230.

CM SC 305

## Programming and Applications in Java (3)

Prerequisite: CM SC 230 (prior to spring 1999) or CMIS 240, or equivalent. A one-semester study of Java, equivalent to CM SC 130-230. Programming projects in Java are included. Students who complete CM SC 230 after fall 1998 may receive credit for only one of the following courses: CM SC 230 or CM SC 305.

## CM SC 311

## Computer Organization (3)

Prerequisite: A two-course sequence in a programming language. A study of the organization of memory, input/output, and central processing units, including instruction sets, register transfer operations, control microprogramming, data representation, and arithmetic algorithms. Assembly language and digital logic circuit design are introduced. Students may receive credit for only one of the following courses: CMIS 270, CMIS 310, CM SC 311, IFSM 310.

CM SC 330

## Advanced Programming Languages (3)

Prerequisite: CM SC 230 or CM SC 305 , or equivalent. A study of imperative and declarative programming languages. $\mathrm{C}++$ is presented as the prime imperative language and compared with Ada. LISP and PRO LO G are introduced as declarative languages. Formal syntax and semantics are discussed. Students may receive credit only once under this course number.

CM SC 335
0 bject-O riented and Concurrent Programming (3)
Prerequisite: CMSC 230 or CM SC 305, or equivalent. A study of object-oriented and concurrent programming using features of Java. C oncepts of object-oriented programming (such as task and polymorphism) are explored. The principles of concurrent programming (such as task synchronization, race conditions, deadlock, and threads) are studied. Programming projects are implemented in Java. Students may receive credit for only one of the following courses: CM SC 300 or CM SC 335.

CM SC 411
Computer System Architecture (3)
Prerequisite: CM SC 311 or equivalent. A discussion of input/output processors and techniques, covering their relation to intrasystem communication, including buses and caches. Also covered are addressing and memory hierarchies, microprogramming, parallelism, and pipelining.

## CM SC 412

## Operating Systems (3)

Prerequisite: CM SC 311 or equivalent. An introduction to batch systems, spooling systems, and third-generation multiprogramming systems. The parts of an operating system are described in terms of their function, structure, and implementation. Basic policies for allocating resources are also discussed.

CM SC 420

## D ata Structures (3)

Prerequisite: CM SC 135 or CM SC 230 with a minimum grade of $C$, or equivalent. A study of data structures (including lists and trees) in terms of their descriptions, properties, and storage allocations. Algorithms are used to manipulate structures. Applications are drawn from the areas of information retrieval, symbolic manipulation, and operating systems.

## CM SC 421

## Introduction to Artificial Intelligence (3)

Prerequisites: CM SC 330 and 420, or equivalent. An exploration of various areas of artificial intelligence, including search, inference, knowledge representation, learning, vision, natural languages, expert systems, and robotics. Programming languages (e.g., LISP, PRO LO G), programming techniques (e.g., pattern matching, discrimination networks), and control structures (e.g., agendas, data dependencies) are implemented in suitable applications.

## CM SC 424

## D atabase D esign (3)

Prerequisite: CM SC 420 or equivalent; CM SC 450 recommended. A study of the applicability of the database approach as a mechanism for modeling the real world. The three popular data models (hierarchical, relational, network) are reviewed. Permissible structures, integrity constraints, storage strategies, and query facilities are compared. The theoretical foundations of the logic used in designing a database are presented.

CM SC 430

## Theory of Language Translation (3)

Prerequisite: CMSC 330 and programming experience in C; CM SC 420 recommended. An examination of the formal translation of programming languages, syntax, and semantics. Highlights include evaluation of finite-state grammars and recognizers; context-free parsing techniques such as recursive descent, precedence, $L L(K), L R(K)$, and SLR $(\mathrm{K})$; and improvement and generation of machineindependent code and syntax-directed translation schema.

CM SC 450

## Logic for Computer Science (3)

(Also listed as M ATH 450. Accessible to advanced undergraduates specializing in computer science.) Prerequisites: CM SC 150 and M ATH 241, or equivalent. Elementary development of propositional logic (including the resolution method) and first-order logic (including H ebrand's unsatisfiability theorem). Discussion covers the concepts of truth and interpretation; validity, provability, and soundness; completeness and incompleteness; and decidability and semidecidability. Students may receive credit for only one of the following courses: CM SC 450, M ATH 444, M ATH 445 , or MATH 450.

## CM SC 451

## Design and Analysis of Computer Algorithms (3)

Prerequisites: CM SC 150 and 230, or equivalent. Presentation of fundamental techniques for designing and analyzing computer algorithms. Basic methods include divide-and-conquer techniques, search and traversal techniques, dynamic programming, greedy methods, and induction.

## CM SC 452

## Elementary Theory of Computing (3)

Prerequisite: CM SC 135 or CM SC 230, or equivalent. A nalysis of alternative theoretical models of computation and types of automata. Their relationship to formal grammars and languages are specified.

## CM SC 498 <br> Special Topics in Computer Science (1-3)

Prerequisites: Vary according to topic. A seminar on topics in computer science. M ay be repeated to a maximum of 6 credits when topics differ.

## COOPERATIVE EDUCATION

Cooperative Education ( $\mathrm{Co}-\mathrm{op}$ ) extends education beyond the traditional classroom by integrating career-related work opportunities with the student's field of study. Co-op offers an ideal opportunity to enhance job performance while earning upper-level college credit toward a bachelor's degree.

Students may earn credit for new learning in a current position or seek a new position through the C o-op Job D evelopment program. A variety of course formats permits U M UC students, regardless of location, to participate in Co-op.

## Credit earned in courses designated COOP may be applied toward

- a primary or a closely related secondary specialization, up to a maximum of 6 semester hours;
- supporting credit related to a primary or secondary specialization; and
- electives.

Students are responsible for consulting their resource team regarding applying COOP credit to their degree program.

Approval and registration information is obtained through the C ooperative Education office. M ore details and contact information are available on p .51.

## COOP 301

## C ooperative Education (3 or 6)

Prerequisite: Formal admission to Co-op program (students should call 301-985-7780 for information). Specially structured, personalized courses that provide opportunities to earn credit for new learning that is gained through on-thejob experience. Academic theory is integrated with workplace learning. Co-op credit may be earned in any U M U C specialization in paid or unpaid positions. Coursework is completed over a 15 -week period, which may begin at any time during the year. Enrollment may take place any time a work situation offers a new learning opportunity or when placement in a new position occurs. Content is determined by the nature of the position and by a learning contract developed by the student, the employer, and a faculty sponsor. C ommunication is maintained with the faculty sponsor throughout the term. After six academic assignments are completed and the objectives developed in the learning contract are fulfilled, a letter grade is awarded and credit may be earned toward a degree. Students seeking a first bachelor's degree may earn a maximum of 15 semester hours of credit in C o-op; students seeking a second bachelor's degree may earn a maximum of 9 semester hours in $\mathrm{Co}-\mathrm{op}$.

## COOP 486P

Psychology Internship Through C ooperative Education (3 or 6)
(Also listed as PSYC 486.) Prerequisites: Formal admission to C o-op program (students should call 301-985-7780 for information), 30 semester hours completed, a minimum GPA (overall and in all psychology courses) of 3.0, and PSYC 305 (for a research internship) or PSYC 432 or PSYC 436 (for a clinical internship) or equivalent. Supervised field experience in clinical psychology or psychology research. The opportunity to gain experience in a hospital, school, clinical, research, or other appropriate work setting is provided. Work may be paid or unpaid and must take place at an approved site as arranged by the student. Academic assignments are al so required. Students seeking a first bachelor's degree may earn a maximum of 15 semester hours of credit in Co-op; students seeking a second bachelor's degree may earn a maximum of 9 semester hours in Co-op.

## COOP 486S

## Paralegal Internship Through Cooperative Education (3 or 6)

(Also listed as PLGL 486.) Prerequisites: Formal admission to Co-op program (students should call 301-985-7780 for information); PLGL 200, 201, and 204, or equivalent; 9 semester hours of upper-level credit in paralegal studies completed; 15 additional semester hours completed; and a minimum GPA of 3.0. The opportunity to gain experience in public interest or legal aid settings under supervision of an attorney. Positions are unpaid and at preapproved sites arranged by the student. Academic assignments are also required. Students seeking a first bachelor's degree may earn a maximum of 15 semester hours of credit in Co-op; students seeking a second bachelor's degree may earn a maximum of 9 semester hours in Co-op.

## CRIMINOLOGY/CRIMINAL JUSTICE

## C ourses in criminology/criminal justice (designated CCJS) may be applied toward

- the general education requirement in the social and behavioral sciences (a counselor can provide details on which CCJS courses apply);
- a primary or a secondary specialization in criminology/ criminal justice;
- supporting credit for a primary or a secondary specialization in paralegal studies or sociology/anthropology; and
- electives.

Students who previously received credit for courses in the disciplines of criminology (courses designated CRIM ) or criminal justice (courses designated CJUS) may not receive credit for comparable courses designated CCJS.

A description of the curriculum begins on p. 28.

## CCJS 100

## Introduction to Criminal Justice (3)

An introduction to the administration of criminal justice in a democratic society, emphasizing the history and theories of law enforcement. The principles of organization and administration in law enforcement are covered, including specific activities and functions, such as research and planning, public relations, personnel and training, inspection and control, and formulation and direction of policy. Students may receive credit for only one of the following courses: BEH S 351, CCJS 100, or CJUS 100.

## CCJS 105

## Introduction to Criminology (3)

An overview of criminal behavior and the methods of studying it. Topics include causation; typologies of criminal acts and offenders; the practices and effects of punishments, correction, and incapacitation; and the prevention of crime. Students may receive credit for only one of the following courses: CCJS 105 or CRIM 220.

## CCJS 230

## Criminal Law in Action (3)

An exploration of law as one of the methods of social control. The nature, sources, and types of criminal law are studied in relation to its history and theories. Behavioral and legal aspects of criminal acts and the classification and analysis of selected criminal offenses are covered. Students may receive credit for only one of the following courses: CCJS 230 or CJUS 230.

CCJS 234
Criminal Procedure and Evidence (3)
Prerequisite: CCJS 230. A study of the general principles and theories of criminal procedure. Aspects covered include due process, arrest, search and seizure, and the evaluation of evidence and proof. Recent developments in the field are discussed. Students may receive credit for only one of the following courses: CCJS 234, CJUS 234, or PLGL 320.

## CCJS 320

## Introduction to Criminalistics (3)

Prerequisite: CCJS 234. An introduction to modern methods used in detecting, investigating, and solving crimes. The practical analysis of evidence in a criminal investigation laboratory is covered. Topics include photography, fingerprints, and other impressions; ballistics and examination of documents and the handwriting on them, glass, and hair; drug analysis; and lie detection. Students may receive credit for only one of the following courses: CCJS 320 or CJU S 320.

## CCJS 330

C ontemporary Criminological Issues (3)
Prerequisite: CCJS 105. An examination of career criminals, prison overcrowding, prediction, ecological studies of crime, family and delinquency, and similar criminological problems. Students may receive credit for only one of the following courses: CCJS 330 or CRIM 330.

## CCJS 331

## C ontemporary Legal Policy Issues (3)

Prerequisites: CCJS 230 and 234, or equivalent. Thorough examination of selected topics: criminal responsibility, alternative sociolegal policies on deviance, law-enforcement procedures for civil law and similar legal problems, admissibility of evidence, and representation of the indigent's right to counsel. Students may receive credit for only one of the following courses: CCJS 331 or CJUS 330.
CCJS 340

## Law-Enforcement Administration (3)

Prerequisite: CCJS 100 or equivalent. An introduction to concepts of organization and management as they relate to law enforcement. Topics covered include principles of structure, process, policy and procedure, communication and authority, division of work and organizational controls, the human element in the organization, and informal interaction in the context of bureaucracy. Students may receive credit for only one of the following courses: CCJS 340 or CJUS 340.

## CCJS 350

## Juvenile D elinquency (3)

Prerequisite: CCJS 105 or CRIM 450. An examination of juvenile delinquency in relation to the general problem of crime, factors underlying juvenile delinquency, prevention of criminal acts by youths, and the treatment of delinquents. Students may receive credit for only one of the following courses: CCJS 350 or CRIM 450.

## CCJS 352

## Drugs and Crime (3)

Prerequisite: CCJS 100. An analysis of the role of criminal justice in controlling the use and abuse of drugs. Students may receive credit for only one of the following courses: CCJS 352 or CJUS 352.

CCJS 357

## Industrial and Retail Security Administration (3)

Prerequisite: CCJS 100. Exploration of the origins of contemporary private security systems. The organization and management of protective units (industrial and retail) are examined. Students may receive credit for only one of the following courses: CCJS 357 or CJUS 360.

CCJS 360

## Victimology (3)

Prerequisite: CCJS 105. An overview of the history and theory of victimology in which patterns of victimization are analyzed, with emphasis on types of victims and types of crimes. The interaction between victims of crime and the system of criminal justice is considered in terms of the role of the victim and the services that the victim is offered. Students may receive credit for only one of the following courses: CCJS 360 or CRIM 360.

CCJS 370
Race, Crime, and Criminal Justice (3)
Prerequisite: CCJS 100 or equivalent. A historical and theoretical study of the role and treatment of racial and ethnic minorities in the criminal justice system.

CCJS 400
Criminal Courts (3)
An examination of criminal courts in the United States at all levels. Topics include the roles of judges, prosecutors, defenders, clerks, and court administrators, and the nature of their jobs; problems of administration, as well as those facing courts and prosecutors; and reform. Students may receive credit for only one of the following courses: CCJS 400 or CJUS 400.

CCJS 432

## Law of C orrections (3)

Prerequisite: CCJS 230 or CCJS 234. A review of the law of criminal corrections, from sentencing to final release or release on parole. Probation, punishments, special treatments for special offenders, parole and pardon, and the prisoner's civil rights are examined. Students may receive credit for only one of the following courses: CCJS 432 or CRIM 432.

CCJS 444

## Advanced Law-Enforcement Administration (3)

Prerequisite: CCJS 340. A foundation in organizing the labor, material, and systems needed to accomplish the major goals of social control. Topics covered include personnel and systems management as well as political controls and limitations on authority and jurisdiction. Students may receive credit for only one of the following courses: CCJS 444 or CJUS 444.

## CCJS 451

## Crime and De elinquency Prevention (3)

Prerequisite: CCJS 350. A review of methods and programs used in preventing crime and delinquency. Students may receive credit for only one of the following courses: CCJS 451 or CRIM 451.

CCJS 452
Treatment of Criminals and D elinquents (3)
Prerequisite: CCJS 350. Analysis of processes and methods used to modify criminal and delinquent behavior. Students may receive credit for only one of the following courses: CCJS 452 or CRIM 452.

## CCJS 453 <br> White-C ollar and 0 rganized Crime (3)

Prerequisite: CCJS 350. An overview of the definition, detection, prosecution, sentencing, and impact of white-collar and organized crime. Special consideration is given to the role of federal law and enforcement practices. Students may receive credit for only one of the following courses: CCJS 453 or CRIM 456.

## CCJS 454

Contemporary Criminological Theory (3)
Prerequisite: CCJS 350. A brief historical overview of criminological theory up to the 1950s. Deviance, labeling, and typologies are examined, as well as the most recent research on criminalistic subcultures and on middle-class delinquency. Various recent proposals for decriminalization are discussed. Students may receive credit for only one of the following courses: CCJS 454 or CRIM 454.

## CCJS 461

## Psychology of Criminal Behavior (3)

Prerequisite: PSYC 330 or PSYC 353. An overview of the biological, environmental, and psychological factors that underlie criminal behavior. Characteristics of criminal behavior are reviewed. The influence of biophysiology on crime is examined, as well as the influence of stress on the commission of various crimes. Patterns of mal adjustment, disorders of the personality, psychoses, the connection between aggression and violent crime, sexual deviations and crimes that are sexually motivated, and the abuse of alcohol and drugs are studied. Students may receive credit for only one of the following courses: CCJS 461 or CRIM 455.

## ECONOMICS

## C ourses in economics (designated ECON) may be applied toward

- the general education requirement in the social and behavioral sciences;
- a primary or a secondary specialization in economics or management studies;
- supporting credit for a primary or a secondary specialization in area studies (when appropriate), business and management, information systems management, management, management studies, technology and management, and other areas; and
- electives.

A description of the curriculum begins on p. 29.
ECON 201

## Principles of Economics I (3)

An introduction to the problems of unemployment, inflation, and economic growth. Emphasis is on the roles of monetary policy and fiscal policy in determining macroeconomic policy. The efficacy of controlling wages and prices is analyzed. Students may receive credit for only one of the following courses: ECON 201 or ECON 205.

ECON 203

## Principles of Economics II (3)

Recommended: ECON 201. Analysis of the principles underlying the behavior of individual consumers and business firms. Topics include problems of international trade and finance, distribution of income, policies for eliminating poverty and discrimination, problems of environmental pollution, and effects of various market structures on economic activity.

ECON 205

## Fundamentals of Economics (3)

A one-semester introduction to the principles of economics and their applications to the major economic problems of society. Topics include problems of population, poverty, inflation, unemployment, inequality, monopoly, urban renewal, environmental protection, economic planning, imperialism, international trade, and comparative economic systems. Students may receive credit for only one of the following courses: ECON 201 or ECON 205.

ECON 301

## Current Issues in American Economic Policy (3)

Prerequisite(s): ECON 201 and 203, or ECON 205. Analysis of current economic problems and public policies. Topics include market power, federal budget and tax policy, governmental regulation, inflation, unemployment, poverty and distribution of income, and environmental issues.

ECON 305

## Intermediate M acroeconomic Theory and Policy (3)

Prerequisites: ECON 201 and 203. Analysis of forces that determine a nation's income, employment, and price levels. Topics discussed include consumption, investment, inflation, and governmental fiscal and monetary policy. Students may receive credit for only one of the following courses: ECO N 305, ECON 401, or ECON 405.

ECON 306

## Intermediate Microeconomic Theory (3)

Prerequisites: ECON 201 and 203. Analysis of the principles underlying the behavior of individual consumers and business firms. Theories of marketing systems, distribution, and the roles of externalities are covered. Students may receive credit for only one of the following courses: ECON 306 or ECON 403.

## ECON 307

## D evelopment of Economic Ideas: Social Issues and Political Applications (3)

(Fulfills the historical perspective requirement.) Prerequisite: ECON 201 or ECON 205. A study of the development of economic ideas as they relate to underlying philosophies, views of the prospects of humanity, the role of values, methods of analysis, social history, and contemporary politicoeconomic problems. Theories advanced by M arx, M arshall, Veblen, Schumpeter, Samuelson, Friedman, K eynes, Galbraith, M yrdal, Robinson, and others are discussed.

## ECON 315

## Economic Development of Underdeveloped Areas (3)

Prerequisite(s): ECON 201 and 203, or ECON 205. Analysis of the economic and social characteristics of underdeveloped areas. Recent theories about economic development, obstacles to development, and policies and planning for development are discussed. Students may receive credit for only one of the following courses: ECON 315 or ECON 416.

## ECON 321

## Economic Statistics (3)

Prerequisite: M ATH 220 or equivalent. Introduction to the use of statistics in economics. Topics include random variables and their distributions, analysis of variance, estimation, regression analysis, probability theory, sampling theory, and correlation. Students may receive credit for only one of the following courses: BEH S 202, BEH S 302, BM GT 230, ECON 321, GNST 201, M GMT 316, PSYC 200, SOCY 201, STAT 100, or STAT 400.

## ECON 370

## Labor M arkets, H uman Resources, and Trade Unions (3)

Prerequisite(s): ECON 201 and 203, or ECON 205. A survey of labor markets and the American labor movement. Topics analyzed include the growth and composition of the labor force; theories of determining wages; the wage/price spiral; collective bargaining; problems of unemployment and labormarket operations; and governmental regulation of employment and labor relations. Students may receive credit for only one of the following courses: ECON 370 or ECON 470.

ECON 380

## Comparative Economic Systems (3)

(Fulfills the international perspective requirement.) Prerequisite(s): ECON 201 and 203, or ECON 205. A comparative analysis of the theory and practice of various types of economic systems, with special attention paid to the economic systems of the United States, the former Soviet Union, the People's Republic of China (mainland China), Western and Eastern Europe, and less-developed countries.

## ECON 381

## Environmental Economics (3)

Prerequisite: ECON 201 or ECON 205. Application of economic theory to problems of environmental quality and management. The theory behind common-property resources, economic externalities, alternative pollution-control measures, and limits to economic growth is discussed.

ECON 425

## M athematical E conomics (3)

(For students specializing in economics.) Prerequisites: ECO N 201 and 203, and a year of college mathematics. An explanation of the simpler aspects of mathematical economics. The types of calculus and algebra that are required for economic analysis are presented.

## ECON 430

## Money and Banking (3)

Prerequisites: ECON 201 and 203. An examination of the structure of financial institutions and their role in providing money and near-money. Institutions, processes, and correlations analyzed include the functions of the Federal Reserve System, the techniques of central banks, the control of the supply of financial assets as a mechanism of stabilization policy, and the relationship of money and credit to economic activity and prices. Students may receive credit for only one of the following courses: ECON 430 or ECON 431.

## ECON 440

## International Economics (3)

(Fulfills the international perspective requirement.) Prerequisite(s): ECON 201 and 203, or ECON 205. A description of international trade and an analysis of international transactions, exchange rates, and balance of payments. Policies of protection, devaluation, and exchange rate stabilization and their consequences are also analyzed. Students may receive credit for only one of the following courses: BEH S 440, ECON 440, or ECON 441.

## ECON 450

## Introduction to Public-Sector Economics (3)

Prerequisite(s): ECON 201 and 203, or ECON 205. A study of public finance, examining the roles of federal, state, and local governments in meeting the demands of the public. Theories of taxation, public expenditures, governmental budgeting, benefit/cost analysis, and redistribution of income are analyzed, along with their applications in public policy. Students may receive credit for only one of the following courses: ECON 450 or ECON 454.

## EDUCATION

UM UC does not offer a specialization in education.

## C ourses in education from other institutions may be accepted as transer credit and applied toward

- a secondary specialization;
- supporting credit for appropriate primary or secondary specializations with the prior approval of a counselor; and
- electives.

Education courses may be scheduled as ED HD, EDUC, ED PA, or EDCP.

Students enrolling for career purposes should inquire with the state where they plan to teach for information about specific curriculum requirements.

## EDUCATION: COUNSELING AND PERSONNEL SERVICES

Courses in this discipline - education: counseling and personnel services (designated EDCP) - do not apply toward teacher-certification requirements.

Lower-level courses are intended to help students learn how to make the most of their college careers. They are recommended for students who have been away from school or who need to improve their academic skills.

EDCP 101, 101X, 103, and 103X do not fulfill the general education requirement in communications.

General descriptions of other courses designed to help students succeed in school or on the job are given under career planning (courses designated CAPL) and library skills (courses designated LIBS).

ED CP 101

## Effective Writing Skills (3)

(Students for whom English is a second language should consider taking EDCP 101X instead. Recommended as preparation for EN GL 101. D oes not fulfill the general education requirement in communications.) Prerequisite: Satisfactory performance on a placement test. A study of writing designed to improve basic skills at the levels of the sentence, paragraph, and short essay. Topics reviewed include word choice, grammar, punctuation, and mechanics. Frequent opportunities to practice and refine skills are provided.

EDCP 101X

## Effective Writing Skills (3)

(Enrollment restricted to students for whom English is a second language. Recommended as preparation for EN GL 101. D oes not fulfill the general education requirement in communications.) Prerequisite: Satisfactory performance on a placement test. A study of writing designed to improve basic skills at the levels of the sentence, paragraph, and short essay. Topics reviewed include word choice, grammar, punctuation, and mechanics. Frequent opportunities to practice and refine skills are provided

## EDCP 103

## Elements of Composition and Style (3)

(Students for whom English is a second language should consider taking EDCP 103X instead. Recommended as preparation for EN GL 101 or upper-level writing courses. D oes not fulfill the general education requirement in communications.) Prerequisite: Satisfactory performance on a placement test or recommendation of a resource team counselor. A review of the basic skills needed for writing long essays and reports. Topics include increasing language awareness, developing sophisticated diction, and improving grammar. Practice in writing generative sentences, creating examples, and developing extended paragraphs is provided. Focus is on discerning, gathering, organizing, and presenting evidence and on developing a narrative voice.

## EDCP 103X

## Elements of Composition and Style (3)

(Enrollment restricted to students for whom English is a second language. Recommended as preparation for EN GL 101 or upper-level courses. D oes not fulfill the general education requirement in communications.) Prerequisite: Satisfactory performance on a placement test or recommendation of a resource team counselor. A review of the basic skills needed for writing long essays and reports. Topics include increasing language awareness, developing sophisticated diction, and improving grammar. Practice in writing generative sentences, creating examples, and developing extended paragraphs is provided. Focus is on discerning, gathering, organizing, and presenting evidence and on developing a narrative voice.

EDCP 108B

## Reading and Study Skills (1)

D evelopmental directed approaches designed for students to learn how to achieve competency in managing their own behavior. Improved reading and study skills are the goal.

## EDCP 108D

## C areer D evelopment and Decision Making (1)

An analytical approach to self-insight and the world of work. Self-assessment of skills, interests, and values is central. Vocational testing and interpretation are included. N ew career options are explored based on testing and assessment results, and realistic career goals are set. Students may receive credit for only one of the following courses: CAPL 171 or EDCP 108D.

## EDCP 108R

## Returning Students: Skills for Taking C harge of Your Life (1)

Presentation of methods for effective life planning. The focus is on self-insight and self-management in clarifying values, setting goals, managing time, and practicing assertive techniques.

## EDCP 410

## Introduction to Counseling and Personnel Services (3)

A presentation of principles and procedures of counseling. Functions of social workers, counselors, psychologists, and other workers in school personnel services are explored.

## EDUCATION: HUMAN DEVELOPMENT

C ourses in human development support the study of education by emphasizing the social, behavioral, and cognitive changes that accompany physical growth.

Courses in human development (designated ED HD) may be applied toward

- electives only.

EDHD 320
Human D evelopment Through the Life Span (3)
Presentation of fundamental concepts underlying social and individual parameters of human development at various stages of life. Focus is on continuity and change over the course of an individual's development.

EDHD 411

## Child Growth and Development (3)

A study of the growth and development of the child from conception through the early childhood years. Emphasis is on developmental sequences in the physical, psychological, and social spheres. Implications for understanding and working with children at home, at school, and in other settings are considered.

EDUCATION: POLICY, PLANNING, AND
ADMINISTRATION

## EDPA 301

## Foundations of Education (3)

An overview of the historical, social, cultural, and philosophical foundations of American education. Topics include the organizational structure, operation, and function of modern school systems and education as a profession. Comparative education and contemporary issues are also covered.

## ENGLISH

All courses in English (designated ENGL) may be applied toward

- a primary specialization (for the B.A. only) or a secondary specialization in English; and
- electives.

C ourses in literature may also be applied toward

- the general education requirement in the arts and humanities.

EN GL 101, 101X, 281, 281X, 384, 493, 498, 498N , 498P, 499, and 499N may be applied toward the general education requirement in communications.

EN GL 303, 391, 391X, and 396 (as well as COM M 390, 393, 393X, 394, and 394X, and PLGL 401) are designated as writing-intensive and may be applied toward the general education requirement in upper-level intensive writing.

EN GL 106 and EDCP 101, 101X, 103, and 103X may be used as electives but do not fulfill requirements.

Placement tests are required for enrollment in EN GL 101 and 101X. Students may either consult the U ndergraduate Schedule of Classes for times and locations of tests or contact the Testing Center by phone at 301-985-7645 or by e-mail at des@www.umuc.edu.

D egree-seeking students must complete ENGL 101 (or present its equivalent in transfer) during their first 15 semester hours of enrollment at UMUC. ENGL 101 is prerequisite to all English writing courses with higher numbers, except ENGL 281, as well as to most courses in communication studies.

Students for whom English is a second language should consider taking writing courses designated with $X$, such as EN GL 101X, 391X, etc. O ther writing courses are available under the discipline of communication studies.

A description of the curriculum begins on p. 29.

EN GL 101

## Introduction to Writing (3)

(Students for whom English is a second language should consider taking EN GL 101X instead.) Prerequisite: Satisfactory performance on a placement test. Practice in effective writing and clear thinking at the levels of the sentence, paragraph, and essay. Specific steps reviewed within the writing process include formulating purpose, identifying an audience, and selecting and using methods of development. Assignments include composing a total of 4,500 words (approximately 20 pages) on familiar subjects.

## EN GL 101X

## Introduction to Writing (3)

(Enrollment restricted to students for whom English is a second language.) Prerequisite: Satisfactory performance on a placement test. Practice in effective writing and clear thinking at the levels of the sentence, paragraph, and essay. Specific steps reviewed within the writing process include formulating purpose, identifying an audience, and selecting and using methods of development. Assignments include composing a total of 4,500 words (approximately 20 pages).

EN GL 106

## Introduction to Research Writing (1)

(D esigned to help students from various disciplines become more proficient and interesting writers.) Step-by-step instruction and practical experience in the fundamentals of the traditional process of research and writing: planning and beginning a paper, composing the paper, giving credit to sources, and presenting the final paper in correct manuscript form. Students may receive credit for only one of the following courses: COM P 112 or EN GL 106.

EN GL 201

## Western World Literature: H omer to the Renaissance (3)

(Fulfills the international perspective requirement.) A survey of classic writings from Greek, biblical, Roman, and medieval civilizations. Attention is given to literary forms as well as to the ways they reflect the values of their cultures. Readings may include selections from the Bible and the writings of H omer, Sophocles, Virgil, D ante, and Chaucer. Selections may vary each semester.

EN GL 202
Western World Literature: Renaissance to the
Present (3)
(Fulfills the international perspective requirement.) A survey of European classic writings from the Renaissance to the modern age. Attention is given both to literary form and to how the works reflect the changing ideas and values of European civilization. Readings may include works by Shakespeare, M olière, Voltaire, G oethe, D ostoyevsky, and Camus. Selections may vary each semester.

EN GL 222

## American Literature: 1865 to the Present (3)

(Fulfills the historical perspective requirement.) A study of the development of American literature since the Civil War, emphasizing representative authors and works. Genres investigated include stories and poems as well as novels and plays. N ovels may be chosen from works of M ark Twain, H enry James, Edith W harton, F. Scott Fitzgerald, Kurt Vonnegut, and W illiam Faulkner; plays may be chosen from works of Eugene 0 ' N eill, Arthur M iller, and Tennessee W illiams. Significant films may be viewed.

EN GL 234
Introduction to African American Literature (3)
A survey of African American literature from the late 18th century to the present.

ENGL 240

## Introduction to Fiction, Poetry, and D rama (3)

An introduction to fiction, poetry, and drama, with emphasis on developing critical reading skills. Study may be organized either by genre or by theme. Writers covered vary from semester to semester. Films may be included.

## EN GL 241

## Introduction to the Novel (3)

A survey of the development of the genre, with primary emphasis on the techniques and styles of representative novelists. Six to eight novels (depending on length) are studied, in English or in English translation.

## EN GL 246

## The Short Story (3)

An analysis of the attributes of the well-written short story. Primary emphasis is on aspects such as theme, plot, characterization, point of view, tone, imagery, irony, and symbolism, as exemplified in representative works of the 19th and 20th centuries. O nly minimal biographical and historical background is provided; the focus is on the selected writings.

EN GL 278F

## Introduction to Principles of Text Editing (3)

(Fulfills the general education requirement in communications.) Prerequisite: EN GL 101 or equivalent. An introduction to the practice of editing. The focus is on striving for correctness, consistency, and clarity of style while writing, evaluating, and rewriting various documents. Discussion topics include building an editor's reference library, exploring editing as a profession, and reviewing computer-assisted editing.

## ENGL 281

## Standard English Grammar, U sage, and Diction (3)

(Students for whom English is a second language should consider taking EN GL 281X instead. Fulfills the general education requirement in communications but is not a writing course.) Prerequisite: EN GL 101 or equivalent. An overview of grammatical structures of standard formal and written English. Topics may include parts of speech, punctuation, choice and usage of words, sentence patterns, and advanced grammatical issues.

## ENGL 281X

## Standard English Grammar, Usage, and Diction (3)

(Enrollment restricted to students for whom English is a second language. Fulfills the general education requirement in communications but is not a writing course.) Prerequisite: EN GL 101X or equivalent. An overview of grammatical structures of standard formal and written English. Topics may include parts of speech, punctuation, choice and usage of words, sentence patterns, and advanced grammatical issues.

ENGL 303

## Critical Approaches to Literature (3)

(Fulfills the general education requirement in intensive upper-level writing. D esigned as a foundation for other upper-level literature courses.) Prerequisite: EN GL 101 or equivalent. A study of the techniques of literary analysis, emphasizing close reading of texts. The goal is to better understand and appreciate literature and to be able to formulate concepts and express them in well-written, coherent prose. Students are required to compose a total of 6,000 words (approximately 25 pages).

## EN GL 304

## The M ajor Works of Shakespeare (3)

(Fulfills the international perspective requirement.) An overview of the variety of Shakespeare's works, including a representative sample of comedies, histories, tragedies, and romances. The goal is to gain a better understanding of and appreciation for the plays, both in reading the texts and viewing performances of them.

EN GL 310

## Medieval and Renaissance British Literature (3)

(Fulfills the historical and international perspective requirements.) An exploration of the cultural attitudes and values that separate the M iddle Ages from the Renaissance, highlighting the changing role and purpose of the writer. M ajor works and authors may include Beowulf, Sir Gawain and the Green Knight, Chaucer, Spenser, M arlowe, and Shakespeare.

## EN GL 312

## Romantic to Modern British Literature (3)

(Fulfills the historical and international perspective requirements.) A study of representative authors and works in British literature from the early 19th century to the present, with emphasis on the novel. Some poetry and drama are also covered. The works of representative writers (such as Jane Austen, Charles D ickens, Thomas H ardy, P. D. James, and others) are explored.

## EN GL 313

## American Literature (3)

A detailed study of selected major texts of American literature from the 17th to the 20th century, including women's literature, African American literature, and literature from various regions of the country.

EN GL 340

## Studies in Fiction, Poetry, and Drama (3)

An exploration of literary genres that incorporates both contemporary and traditional works. Emphasis is on the study of literature- its creation, texts, and interpretations-as a means for developing interpretive and analytical skills.

## EN GL 345

## 20th-Century Poetry (3)

( $N$ ot open to students who have already completed EN GL 445 or 446.) A survey of British and American poetry from Yeats and Robinson to the present. Special emphasis is on Yeats, Pound, Eliot, W illiams, Roethke, and Lowell.

EN GL 350

## English and American Literature: Blake to Conrad (3)

(Formerly H UM N 325. Fulfills the historical and international perspective requirements.) An exploration of the poetry, short stories, novels, and prose of British Romanticism, the American Renaissance, and Victorian England. The writings of seminal thinkers such as John Keats, Emily Dickinson, $M$ ark Twain, Robert Browning, and Charles Dickens are studied. Salient topics may include the destruction of the wilderness, the conflicting roles of women, the struggles of African Americans, and the interrelationship of dreams and reality. Students may receive credit for only one of the following courses: EN GL 350 or H U M N 325.

EN GL 364

## 20th-Century African American Literature: The Fictional Vision (3)

(Also listed as H UM N 364.) An examination of the development, diversity, and quantity of African American literature, focusing on contemporary novels. A broad range of major African American authors of the 20th century are studied through some of their important but lesser-known works. Readings may include James Weldon Johnson's The Autobiography of an Ex-Coloured M an, Zora N eale H urston's Their Eyes WereWatching God, Richard Wright's UndeTom's Children, James Baldwin's GoTell It on the M ountain, Ann Petry's The N arrows, Paule M arshall's Brown Girl, Brownstones, Toni M orrison's Sula, Alice Walker's M eridian, and Ernest Gaines's A Gathering of OId M en. Students may receive credit for only one of the following courses: EN GL 364 or H UM N 364.

## EN GL 377

## Medieval Myth and Modern Narrative (3)

( N ot open to students who have completed EN GL 361. Fulfills the historical and international perspective requirements.) A study of literary patterns characteristic of medieval myth, epic, and romance; their continuing vitality in modern works; and links between medieval works (such as The Prose Edda, Beowulf, Le M orte D'Arthur, The Volsunga Saga, and Grettis Saga) and modern narratives (such as Tolkien's The Lord of the Rings).

## EN GL 379B

## M odern C hildren's Literature (3)

A survey of the major genres of current children's literature, ranging from wordless picture books to novels for adolescents, such as I Am the Cheese. Readings include the works of the most talented, widely acclaimed authors and illustrators now working in this field. Focus is on gaining an appreciation for literature in general, as well as improving skills to evaluate it. How to guide children's reading toward stimulating, constructive books is also addressed.

## EN GL 379D

## The D etective in Literature (3)

An examination of the development of the detective genre from Poe to the present. Topics include both the classical and the hard-boiled detective formulas and the social and cultural forces underlying them. Authors whose works may be studied include Edgar Allen Poe, Arthur Conan D oyle, Agatha C hristie, D orothy Sayers, P. D. James, D ashiell H ammett, Raymond Chandler, and Ross MacD onald. Students may receive credit only once under this course number.

## EN GL 3790

## Fiction in English Around the World (3)

(Fulfills the international perspective requirement.) An examination of fiction by English-speaking authors from outside Great Britain and the U nited States. Reading selections will cover a representative sample of authors from Australia (e.g., C arey, Jolley, K eneally), the Indian subcontinent (e.g., Rushdie, N arayan, D esai), Africa (e.g., Emecheta, G ordimer, Achebe), the C aribbean (e.g., Kincaid, Lamming, $N$ aipaul), and C anada (e.g., Atwood, Laurence, O ndaatje).

## EN GL 384

## Advanced Grammar and Style (3)

(Fulfills the general education requirement in communications, but is not a writing course.) Prerequisite: EN GL 281 or equivalent. An examination of the basic units of grammatical description, the nature of grammatical categories and structures and the reasons for creating and using them, and the application of grammatical concepts to written style. Students may receive credit only once under this course number.

## EN GL 391

## Advanced C omposition (3)

(Students for whom English is a second language should consider taking EN GL 391X instead. Fulfills the general education requirement in intensive upper-level writing.) Prerequisite: EN GL 101 or equivalent. Instruction and practice in methods of presenting ideas and factual information clearly and effectively. Emphasis is on developing skills fundamental to both workplace and academic writing. Published writings are discussed and evaluated. Assignments include composing a total of 6,000 words (approximately 25 pages).

## ENGL 391X

## Advanced Composition (3)

(Enrollment restricted to students for whom English is a second language. Fulfills the general education requirement in intensive upper-level writing.) Prerequisite: EN GL 101X or equivalent. Instruction and practice in methods of presenting ideas and factual information clearly and effectively. Emphasis is on developing skills fundamental to both workplace and academic writing. Published writings are discussed and evaluated. Assignments include composing a total of 6,000 words (approximately 25 pages).

## ENGL 396

## Critical Analysis in Reading and Writing (6)

(Formerly H UM N 396. Yields 3 English credits and 3 humanities credits. Fulfills the general education require ments in intensive upper-level writing and the humanities.) Prerequisite: EN GL 101 or equivalent. A study of various strategies for improving reasoning abilities and for evaluating the claims, reasoning, and evidence presented in articles and books. Focus is on improving skills, explaining ideas effectively, and analyzing persuasive strategies used by others. Some attention is given to establishing goals for developing critical-thinking habits. Assignments include composing a total of 6,000 words (approximately 25 pages). Students may receive credit for only one of the following courses: ENGL 396, HUMN 395, or HUMN 396.

## ENGL 403

## Shakespeare: The Early Works (3)

An introduction to Shakespeare's early period, concentrating on the histories and comedies. The study of approximately nine plays usually includes A M idsummer Night's D ream, Romeo and Juliet, Richard II, Richard III, H enry IV, H enry V, Julius Caesar, AsYou Like It, and Twelfth Night. Analysis of Shakespeare's dramatic techniques is emphasized. Some attention is given to his development and the historical milieu (e.g., the theatre of that time). Titles and the number of plays selected each semester may vary. Students may receive credit only once under this course number.

## ENGL 404

## Shakespeare: The Later Works (3)

An overview of Shakespeare's late period, concentrating on the tragedies and final comedies (often called romances). The study of approximately nine plays usually includes H amlet, Othello, M acbeth, King Lear, Antony and Cleopatra, TheW inter'sTale, and TheTempest. Analysis of Shakespeare's dramatic techniques is emphasized. Some attention is given to his development, especially his tragic vision and the historical milieu (e.g., the theatre of that time). Titles and the number of plays selected each semester may vary. Students may receive credit only once under this course number.

EN GL 406

## Shakespeare: Power and Justice (3)

(Formerly H UM N 440.) An intensive study of eight of Shakespeare's dramatic masterpieces as they illuminate the concepts of power and justice in a social and cultural context. The exercise of power, the nature of kingship, and the responsibilities of those who judge others are traced throughout H enry IV, King Lear, M acbeth, H amlet, The M erchant of Venice, A M idsummer Night's D ream, M uch Ado About Nothing, and TheTempest. Primary considerations are the analysis of text, the development of character, and the constraints that performance imposes on the writing of plays. Students may receive credit for only one of the following courses: EN GL 406 or H UM N 440.

## EN GL 419

## Major British Writers After 1800 (3)

(Fulfills the historical and international perspective requirements.) Prerequisite: Two courses in English literature. Intensive study of two writers. M ay be repeated to a maximum of 9 credits when content differs.

## EN GL 425

## M odern British Literature (3)

(Fulfills the historical and international perspective requirements.) An examination of representative authors and works in the development of British literature from the late 19th century to the present. Works studied may include the novels of H ardy, C onrad, D oyle, Ford, Forster, Woolf, Joyce, Lawrence, Fowles, H artley, and Compton-Burnett; the poetry of Yeats, Auden, Larkin, and Smith; and the plays of Shaw, Pinter, O rton, 0 sborne, C hurchill, and Shaffer.

## EN GL 433

## American Literature: 1914 to the Present, the Modern Period (3)

(Fulfills the historical perspective requirement.) A study of representative works- selected from drama, fiction, and poetry- that reflect significant trends in literary techniques and themes as well as shifts in cultural values. O nly minimal biographical and historical background is provided; emphasis is on the literary works.

## EN GL 434

## American D rama (3)

An examination of representative authors in the development of American drama, with emphasis on post-W orld War II writers. Playwrights studied may include Glaspell, 0 ' $N$ eill, H ellman, M iller, Williams, H ansberry, Inge, Albee, Shepard, Wilson, H owe, H enley, and H wang. Film and television adaptations may be included.

## EN GL 436

## The Literature of American Democracy (3)

A study of representative works- sociological, political, and/or literary-that reflect the ideas behind the American Revolution and the founding of the republic. The ways those ideas were developed and modified as democratic institutions evolved are traced in the literature.

## EN GL 437

## C ontemporary American Literature (3)

A survey of representative authors and works in the development of American literature from 1945 to the present, with emphasis on fiction and drama. Works will be chosen from among the fiction of authors such as Truman C apote, John Cheever, Flannery 0 'C onnor, AnneTyler, Kurt Vonnegut, and Alice Walker and the dramas of authors such as Tennessee W illiams, Arthur M iller, Lorraine H ansberry, William Inge, August Wilson, Lanford W ilson, Tina H owe, Sam Shepard, and Tony Kushner. Some films may also be included.

## EN GL 439

## Major American Writers (3)

A literary analysis of the works of significant American writers, emphasizing subject matter, themes, and techniques. Representative writers usually include Twain, W harton, D reiser, Lewis, Fitzgerald, H emingway, Faulkner, and Frost; other authors may be included. M ay be repeated to a maximum of 9 credits when topics differ.

## EN GL 439F

## M ajor American Writers: Frost and Faulkner (3)

Comparison and contrast of two so-called "regional" writers, Frost of New England and Faulkner of M ississippi. Commentary reveals how they transcended their regionalism in dealing with universal themes. Usually 30 or 40 poems by Frost are considered, including his best-known short lyrics. Two or three of the following works by Faulkner are usually explored: The Sound and the Fury, Light in August, As I Lay Dying, and Go Down, M oses. Poems and novels selected each semester may vary.

## EN GL 4391

## Major American Writers: Twain and Crane (3)

A critique of the major novels and short stories of $M$ ark Twain and Stephen Crane. Works by Twain include his novel H uckleberry Finn, as well as later, darker works such as the stories "T he M an That C orrupted H adleyburg" and "T he M ysterious Stranger." W orks by C rane include his novel The Red Badge of Courage and stories such as "The Bride Comes to Yellow Sky," "The O pen Boat," and "T he Blue H otel."

EN GL 439)
Major American Writers: Fitzgerald
and Hemingway (3)
Comparison and contrast of two writers of the Lost Gene ration who reflected the disillusionment and alienation that began in the 1920s. Recurring themes and moral values, as well as literary techniques, are highlighted. Representative works by F. Scott Fitzgerald include The G reat Gatsby, Tender Is the Night, and Babylon Revisited. Representative works by Ernest Hemingway include In O ur Time (short stories), The Sun Also Rises, and A Farewell to Arms. Titles and the number of works selected each semester may vary.

EN GL 441

## The Novel in America Since 1914 (3)

Prerequisite: Two courses in English literature. A survey of the American novel since World War I. Cultural and philosophical contexts and technical developments in the genre are discussed. Authors studied may include Ernest Hemingway, W illa Cather, William Faulkner, AnneTyler, and Toni M orrison.

EN GL 446

## Postmodern British and American Poetry (3)

(Fulfills the international perspective requirement.) A study of British and American poetry from the Great Depression to the present. Special emphasis is on W. H. Auden, William Carlos W illiams, D ylan Thomas, Theodore Roethke, and Robert Lowell. M ore general study of the works of other writers- such as Berryman, Jarrell, Fuller, Bishop, Wright, Kinnell, and Larkin - as well as the projectivists, the beats, and writers on the current scene is al so included.

## EN GL 454

## M odern D rama (3)

An examination of representative authors in the development of modern drama, from Ibsen to the present. Plays are generally drawn from the works of Ibsen, Strindberg, Chekhov, Shaw, 0 'N eill, M iller, Williams, Brecht, Pirandello, H ansberry, O rton, Ionesco, Beckett, Pinter, Fugard, Albee, Stoppard, and Shepard. Film and television adaptations of some of the plays may be included.

## EN GL 457

## The M odern Novel (3)

An examination of the development of the novel from the late 19th century to the present, with emphasis on British and American works. Authors and works vary each semester but may include writers such as Thomas H ardy, H enry James, Theodore D reiser, Edith W harton, Virginia W oolf, W illiam Faulkner, James Joyce, Anne Tyler, Alice Walker, and Tim 0 'Brien.

ENGL 466

## The Arthurian Legend (3)

A thematic exposition of the development of the Arthurian legend, traced from the fountainhead of the Arthurian romances, M onmouth's H istory of the Kings of Britain, to the greatest 20th-century Arthurian work, T. H. W hite's The Once and Future King. Works frequently included are Sir Gawain and the Green Knight, romances by Wolfram von Eschenbach, three medieval tales immortalizing the Lancelot/G uinevere love affair, and romances of $M$ alory and Tennyson. The differences in the interpretations of a legend are explored. Variation in works selected is possible.

## ENGL 476

## M odern Fantasy and Science Fiction (3)

Prerequisite: EN GL 101 or equivalent. An analysis of major works of fantasy and science fiction published since the middle of the 18th century. Emphasis is on the development of the genre as well as on literary and cultural issues. Authors may include Jonathan Swift, M ary Shelley, Nikolai G ogol, Edgar Allan Poe, M ark Twain, Robert Louis Stevenson, H. G. Wells, Ray Bradbury, Isaac Asimov, Ursula LeG uin, T. H. White, Robert H einlein, Philip Dick, D ouglas Adams, and M arion Zimmer Bradley.

ENGL 479

## Selected Topics in English and American Literature (3)

A thematic approach to works of the same genre or different genres (poetry, fiction, and/or drama). C omparison and contrast are highlighted.

ENGL 4791

## The Language of Advertising (3)

An examination of the language of modern advertising, a form of communication carefully planned and pretested to ensure certain specific responses and effects. Topics include techniques for structuring language effectively in promoting sales, methods of creating an image, uses for poetic language, advertising strategies to downplay or deemphasize, and special aspects of language and public opinion in the political sphere.

## ENGL 479L

## Literary Classics on Film and Television (3)

A multimedia approach to the reading of significant American and British fiction (novels and short stories). Endeavors in translating the writings into vivid images for the motionpicture and television screens are evaluated. Six or seven works are studied.

EN GL 479R

## The Literature of War (3)

(Fulfills the historical and international perspective requirements.) A survey of literature that focuses on how the creative imagination has dealt with war. Readings include masterworks of drama, fiction, memoir, and poetry written about or by warriors, from ancient Greece to the Vietnam War, with emphasis on the 20th century. Concepts such as honor, duty, comradeship, and "the front vs. the rear" are examined in several contexts.
EN GL 493

## Advanced Expository Writing (3)

(Fulfills the general education requirement in communications.) Prerequisite: EN GL 101 or equivalent. Advanced practice in cohesively and coherently organizing and presenting information, facts, opinions, and ideas in writing. Emphasis is on discerning principles of effective writing reflected in exposition and essays that serve as models for the students' writing.

## EN GL 498

Creative Writing (3)
(Fulfills the general education requirement in communications.) Discussion and critical examination of students' work (poetry, fiction, and/or drama). C onstructive suggestions for improvement are offered. No examinations are given.

## EN GL 498N

## Creative Writing: Writing the Novel (3)

(Fulfills the general education requirement in communications.) Consultation on manuscripts, as well as exposure to the critical process. A five-step approach for beginning a novel is followed. Emphasis is on fiction-writing techniques, critical analysis, and creative philosophy. Critiques are given by students and teacher. No examinations are given.

EN GL 498P

## Creative Writing: Poetry (3)

(Fulfills the general education requirement in communications.) A presentation of various ideas and techniques for writing poetry. Although professional poetry is discussed, the emphasis is on critiquing students' work. Weekly assignments are given.

## EN GL 499N <br> Creative Writing: Writing and Revising the Novel (3)

(Fulfills the general education requirement in communications.) Consultation on manuscripts in progress, with an emphasis on revision and marketing. Emphasis is on fiction-writing techniques, critical analysis, and creative philosophy. Critiques are given by students and the teacher. No examinations are given.

## ENVIRONMENTAL MANAGEMENT

## Courses in environmental management (designated ENMT) may be applied toward

- a primary or a secondary specialization in environmental management;
- supporting credit for a primary or a secondary specialization in environmental management or other primary or secondary specializations, as approved by a counselor; and - electives.

C ourses in environmental management require a basic scientific foundation. Before enrolling, students are recommended to complete the listed prerequisites in math and science and should consult a counselor.

A description of the curriculum begins on p. 31.
ENMT 301
Environment and Ecosystems M anagement (3)
Prerequisite: GNSC 100 or PH YS 121. An overview of the scientific principles governing ecosystems, particularly as they relate to the environmental consequences of resource development and industrial processes. Topics are drawn from the fields of geology, hydrology, meteorology, and ecology. The historical development of environmental management issues and approaches is introduced. Principles of environmental management at the local, regional, and global levels are also covered.

ENMT 305

## H azardous Materials Toxicology (3)

Prerequisites: BIOL 101 and CH EM 104. An introduction to regulatory issues with a focus on the physical and chemical characteristics of nuclear, hazardous chemical, and mixedwaste materials. The normal function of human body systems is studied, drawing on the fields of chemistry, biochemistry, anatomy, and physiology. Basic principles of toxicology are applied to provide an overview of human health effects associated with exposure to hazardous chemicals in the community and in work environments.

ENMT 310

## Emergency Planning and 0 perations Management (3)

Prerequisite: EN M T 305. A review of human-made and natural hazards and emergency-preparedness laws. The relationships between industrial processes and hazardous materials are covered. Topics include developing skills to work safely in a hazardous environment and to prepare hazardous materials for transportation, processing, and disposal. H azardous materials emergency planning, including direction and control of emergency response and remediation, is discussed. Preparation of emergency plans, methodology of disaster response, and performance of emergency operations are also reviewed. Practical exercises are used to demonstrate how to prepare for and respond to emergencies.

ENMT 315

## Environmental Audits and Permits (3)

Prerequisite: EN M T 493. A study of the principles of environmental impact assessment and an in-depth look at various laws, regulations, and methods of performing due diligence audits. Topics include the regulatory requirements of N EPA, EIS reports, types of audits, ISO 14000 environmental systems standards, ASTM audit procedure, D epartment of $H$ ealth and Safety audits, common law privileges, and self-regulation and business transfer statutes. Strategies and methodology for obtaining environmental permits and compliance are also reviewed.

## ENMT 320

## Environmental and $\mathbf{O}$ ccupational Health and Safety Management (3)

Prerequisites: ENM T 305 and EN MT 493. A study of the principles of health and safety management. Topics include recognition, evaluation, and control of hazards; medical surveillance; personal protective equipment; spill and exposure prevention; and contamination reduction and removal methods. Emphasis is on relating these principles to the regulatory processes (e.g., OSH A/N IO SH ) governing environmental and occupational health and safety.

## ENMT 325

## The Biosphere, Energy, and Sustainable D evelopment (3)

Prerequisites: EN M T 301. An overview of biodiversity, conservation, assessment methods, and mitigation. Topics include the relationship between energy and the environment, the impact of fossil fuels on the environment, global concerns of ozone depletion and climate change, alternative and renewable energy sources, conservation and technical advances, and sustainable energy development. Global agreements to balance economic growth against life-support systems and the natural resource base are surveyed. The collective thinking of various experts- to advance and create sustainable development, defining the new paradigm and implications for economic growth and managing the environment- is also explored.

## ENMT 330

## Environmental Monitoring and Investigations (3)

Prerequisites: CHEM 103 and 104. An examination of principles and methods used in monitoring, sampling, and analyzing pollutants in air, water, soil, and wastes. Focus is on developing and implementing sampling and analysis plans and quality assurance and quality control plans, using equipment for sampling and monitoring, and presenting investigation results. Site assessment and remedial investigation practices are also reviewed to characterize sites and explore "how clean is clean?"

## ENMT 340

## Environmental Technology (3)

Prerequisite: ENMT 315. An introduction to multimedia environmental management, control, and remediation. Existing, modified, new, and emerging technologies are surveyed. C ase studies of real-world environmental challenges are presented to demonstrate the evaluation and selection of the appropriate technology for specific uses. Factors of technical integrity, cost effectiveness, and environmental soundness are explained in making technology application decisions.

## ENMT 350

## Integrated Waste M anagement (3)

Prerequisite: EN M T 493. An overview of applicable regulations and technology and management practices related to generation, handling, minimization, prevention, storage, processing, treatment, transfer, and disposal of municipal hazardous, nuclear, mixed, and special wastes. Topics include regulations, methods, and scientific principles for safely managing wastes from generation through final disposal.

EN M T 360
Water Environment M anagement and Use (3)
Prerequisite: EN M T 493. An overview of basic water system composition and how human activities cause pollution. Focus is on relevant laws and regulations, pollution assessment and evaluation techniques, alternative approaches to control pollution, and management systems. Also covered are safe drinkingwater systems, water pollution control systems for sewage and industrial waste water, and storm water management.

ENMT 370

## Environmental Communications and Information Systems (3)

Prerequisites: Previous coursework in writing and computer or information systems. A study of the structure, methodology, and application of the theoretical principles of communication as they pertain to a specific audience, content area, or situation. Emphasis is on conveying risk and legal information, communicating in emergencies, and using public relations skills. An overview of information technology and the use of computers in environmental management is provided. Topics include Internet sites, geographical information systems, environmental models and applications, environmental monitoring and measurement, and automated compliance strategies.

## EN M T 380

## O utdoor and Indoor Air Q uality M anagement (3)

Prerequisites: EN M T 320 and 493. An overview of air quality management. Focus is on atmosphere, pollutants and sources, dispersion, effects, regulations, air pollution control, and noise control. Indoor air pollution topics include the study of sick buildings, causes and risk factors, diagnostic protocols, contamination measurement, and problem mitigation.

EN M T 390

## Environmental Risk Assessment (3)

Prerequisites: EN M T 315 and 320. An overview of principles and relevant regulations and guidelines for performing environmental health and ecological risk assessments. Topics include the pros and cons of different risk assessment methods and how to plan, perform, and report environmental risk assessments. The use and economic effectiveness of risk assessments are also explored.

ENMT 405

## Pollution Prevention and Other Strategies (3)

Prerequisite: EN M T 340. An overview of alternative environmental strategies. Topics include source reduction, recovery, reuse, recycling, and conservation; material substitution; process modifications; quality assurance and quality control and good housekeeping; waste minimization; zero discharge; and pollution prevention, processing, treatment, and disposal. Emphasis is on pollution prevention techniques, practices, and case studies. Economic analysis and regulatory compliance related to these strategies are also reviewed.

## ENMT 493

## Environmental Regulations and Policy (3)

Prerequisites: EN M T 301 and 305. An analytical survey of principles of constitutional and administrative law that are fundamental to environmental and health and safety management. Focus is on acquiring basic knowledge of federal legislation (including CWA, CAA, SDWA, RCRA/H SCA, CERCLA/SARA, FIFRA, TSCA, FDA, DOT, and OSHA) and becoming familiar with the use of the Federal Register and the Code of Federal Regulations. The social contract and its sanctions, as expressed in law and litigation at local, state, national, and international levels, are also reviewed.

ENMT 495

## Environmental Management Issues and Solutions (3)

(Intended as a final capstone course to be taken in senior year of study.) Prerequisite: EN M T 340. An examination of issues in environmental pollution, remediation, and conservation within a multifaceted scientific, legal, political, and global context. Selected topics are drawn from ongoing national and international events concerning pollution issues. An overview is provided of the fundamental elements of an integrated environmental management program, using specific examples. Case studies are used to apply principles and concepts to environmental perspectives, experiences, and research issues. Project-planning and implementation techniques are considered with respect to environmental management and new paradigms of design for the environment. Previously acquired knowledge and skills are used to complement an advanced management project focusing on current issues in the field.


## EXPERIENTIAL LEARNING

The EXCEL Through Experiential Learning program yields UM UC credit for learning acquired outside the classroom.

## C ourses in experiential learning (designated EXCL), as well as credit earned through the program, may be applied toward <br> - appropriate primary or secondary specializations; <br> - supporting credit for appropriate primary or secondary specializations; <br> - general education requirements (according to content) as appropriate; and <br> - electives.

Information about this program is given on p. 51.

## EXCL 301

## Learning Analysis and Planning (3)

Prerequisite: Attendance at a Prior Learning information session and formal admission to the program. (Students should call 301-985-7755 for information.) Instruction in the preparation of a portfolio documenting college-level learning gained through noncollege experience. Focus is on defining goals, exploring the relationship of experiential learning to conventional learning, and documenting learning gained through experience. Faculty evaluators assess completed portfolios for a possible award of credit. Access to word processing equipment is important.

## FAMILY STUDIES

## Courses in family studies (designated FMST) may be applied toward

- a secondary specialization in family studies;
- supporting credit for appropriate primary or secondary specializations in the social or behavioral sciences (certain courses may support a primary or a secondary specialization in criminology/criminal justice); and
- electives.

Courses in this discipline do not fulfill the general education requirement in the social and behavioral sciences.

## FM ST 341

## Personal and Family Finance (3)

A study of individual and family financial strategies with emphasis on financial planning, savings, investments, insurance, income tax, housing, and the use of credit. Strategies discussed include planning, analyzing, and controlling financial resources to resolve personal and family financial problems and attain financial security. Students may receive credit for only one of the following courses: CNEC 410, FM CD 341, FM CD 441, or FM ST 341.

## FIRE SCIENCE

Courses in fire science (designated FSCN ) are intended primarily for fire fighters.

## C ourses in fire science may be applied toward

- a primary or a secondary specialization in fire science; and
- electives.

The fire science specialization is unique. Students should consult a counselor before enrolling in any of the courses.

M ost courses require extensive writing. Students should complete a writing course (EN GL 101, EN GL 391, or EN GL 396) or have equivalent writing experience before enrolling.

A description of the curriculum begins on p. 32.
FSCN 302

## Advanced Fire Administration (3)

A presentation of modern management and planning techniques that apply to organizing a fire department. Procedures explored include those for evaluation and control of budgeting, personnel, communications, and planning. The traditional and evolving roles of the fire department in protection, prevention, and community service are discussed.

FSCN 303

## Analytic Approaches to Public Fire Protection (3)

A presentation of techniques of operations research and systems analysis as they apply to problems in fire protection. Discussion covers techniques such as cost/benefit analysis, methods for locating fire stations, and the use of statistical analysis. Techniques for collecting data on fires and for managing information are explained.

FSCN 304

## Fire-Personnel M anagement (3)

An examination of personnel practices, management procedures, collective bargaining, binding arbitration, and applicable legislative and administrative procedures. Topics include promotion, personnel development, career and incentive systems, validation of physical requirements, and managerial and supervisory procedures.

FSCN 305

## Fire-Prevention Organization and M anagement (3)

An examination of prevention as the primary communitybased strategy for fire protection. Topics include community risk reduction, codes and standards, inspections and plans review, incident investigation, fire-prevention research, and the relationship of master planning to fire prevention. The cultural, economic, governmental, nongovernmental, and departmental influences on fire prevention are also explored. Emphasis is on applying the principles studied to anticipate problems and develop strategies for fire prevention.

FSCN 306

## Incendiary-Fire Analysis and Investigation (3)

A presentation of procedures and techniques for determining, collecting, comparing, and analyzing data on incendiary fires. Principles of ignition phenomena and propagation variables are explained. Discussion deals with the legislative, economic, psychological, sociological, and legal aspects of incendiarism. The role of insurance and governmental programs in combating arson is assessed. Techniques of analyzing and predicting data, including pattern analysis, are presented.

FSCN 401

## D isaster and Fire D efense Planning (3)

A study of the concept and principles of assessing community risk and then developing regional and cooperative procedures and plans of response. The relationship of structural, climatic, and topological variables to group fires, conflagrations, and natural disasters is analyzed. O ther aspects introduced include pre- and postoccurrence factors, such as organization, communications, planning, coordination, and command and logistics.

FSCN 402

## Fire-Related Human Behavior (3)

Explanation of the dynamics of human behavior in fire incidents. The functions and implementation of prevention practices, programs, codes, and ordinances are stressed. The concepts of risk, personal invulnerability, role, and group dynamics are examined in relation to design aspects of buildings and mitigation of the effects of fire on modern society. D iscussion deals with proper ways of conducting postfire interviews, and emphasizes the psychological effects of communications during emergencies.

FSCN 403
M anagerial Issues in H azardous M aterials (3)
The development of the knowledge and skills necessary to safely and effectively manage a hazardous materials emergency. Topics include health and safety concerns, political issues, regulations, site management and control, hazard and risk evaluation, information management, response objectives, special tactical problems, decontamination, and termination activities.

## FSCN 411

## Fire-Protection Structure and Systems D esign (3)

Presentation of design principles involved in protecting buildings and other structures from fire. Empirical tests and prediction procedures are explained. Practices in designing systems for detecting, controlling, and suppressing fires are presented, as is the basic hydraulic design of sprinkler and water-spray systems. Recent innovations in the field are reviewed.

FSCN 412

## Political and Legal Foundations of Fire Protection (3)

A consideration of the legal basis for the police powers of the government in connection with public safety. The responsibility, legal limitations, and liability of fire-prevention organizations and personnel are examined. Judicial decisions are reviewed, with a focus on the implications of product-liability cases in the field of fire prevention.

## FSCN 413

## The Community and Fire Threat (3)

An analysis of the sociological, economic, and political characteristics of communities and their influence on the fire problem. M ethods of studying community profiles and structures are presented; the economic, geographic, and sociological variables of the fire threat are discussed. The functional basis of the community is examined, with attention to the diverse social roles of community agencies and the roles of the fire service as a complex organization within the community.

## FSCN 414 <br> Fire D ynamics (3)

An investigation into the phenomena of fire propagation in the air-regulated phase and the fuel-regulated phase. Variables in the development of pre and postflashover fire are anal yzed. M ajor topics include geometric material; gaseous, fluid-flow, and thermodynamic parameters; and fire models of compartments and buildings.

## FSCN 415

## Application of Fire Research (3)

A practical, up-to-date review of fire research and its application. The transfer of research and its implications for fire prevention and protection programs are addressed. The focus is on both national and international studies, and on maintaining awareness of ongoing research developments.

## FRENCH

## C ourses in French (designated FREN) may be applied toward

- the foreign language requirement for the B.A.;
- the general education requirement for international perspective coursework;
- a primary or a secondary specialization in area studies (when appropriate);
- a secondary specialization in foreign languages; and
- electives.

UM UC offers a limited number of foreign language courses each semester.

## FREN 101

## Elementary French I (4)

(O pen only to students with fewer than two years of French. Fulfills the international perspective requirement.) Introduction to basic structures and pronunciation. Emphasis is on the four skills: listening, speaking, reading, and writing. Students may receive credit for only one of the following courses: FREN 101 or FREN 103.

## FREN 102

## Elementary French II (4)

(Fulfills the international perspective requirement.) Prerequisite: FREN 101. Further work on basic structures and pronunciation. Emphasis is on the four skills: listening, speaking, reading, and writing.

## GENERAL SCIENCE

## C ourses in general science may be applied toward

- the general education requirement in the biological and physical sciences;
- supporting credit for a primary or a secondary specialization in microbiology (when appropriate); and
- electives.

Courses in this discipline may not be applied toward a primary or a secondary specialization.

GNSC 100

## Introduction to Physical Science (3)

(For students not specializing in a science.) An introduction to the basic principles of physics, chemistry, astronomy, biology, geology, oceanography, and meteorology. D iscussion covers the development of scientific thinking, the relationships among the various physical sciences, and the role of the physical sciences in interpreting the natural world.

GNSC 110

## 0 ceanus: The Marine Environment (3)

(For students not specializing in a science.) An introductory study of the marine environment as a unique feature of this planet. Presentation includes theories of the leading N orth American oceanographers concerning forces that shaped the continents and oceans, as well as predictions of the effects of pollution on life in the oceans. Topics include intertidal zones, continental margins, plate tectonics, islands, marine meteorology, ocean currents, wind waves and water dynamics, tides, plankton, nekton, reptiles and birds, mammals of sea and land, polar and tropical seas, biological and mineral resources, and pollution.

GNSC 125

## Universe: The Infinite Frontier (3)

(For students not specializing in a science.) A comprehensive introduction to the science of astronomy. The origins of the solar system and of modern astronomy are presented and examined. Topics include the Ptolemaic and Copernican models of the solar system; the D oppler effect; the "big bang" theory; the planets within the solar system; and the sun, the moon, and the stars. Supernovas, pulsars, quasars, black holes, and neutron stars are discussed. Consideration is given to the possibility of life on other worlds. Students may receive credit for only one of the following courses: ASTR 100 or GNSC 125.

## GNSC 135

## The Earth Revealed (3)

(For students not specializing in a science.) A detailed overview of the geological forces that shape Earth and make it unique, along with an examination of the interrelation between its inhabitants and their physical environment. Topics include the beginnings of the solar system and the evolution of Earth; major features of the sea floor; theory of plate tectonics; the evolution of mountain belts and continents; earthquakes; the origins, classifications, and uses of minerals; volcanoes; processes of change in minerals and rocks; erosional characteristics of moving water; deserts; and glaciers.

## GNSC 140

## The World of Chemistry (3)

(For students not specializing in a science.) A practical approach to chemistry as it applies to everyday life. The basic principles of chemistry that unite the physical world are illustrated via video demonstrations performed with common materials. Interviews with distinguished scientists present historical perspectives, recent practical developments, and potential trends in chemistry. The relevance of the principles of chemistry to the study of biology, genetics, the origins of life, the environment, geology, and physics are highlighted. Students may receive credit for only one of the following courses: CHEM 107 or GNSC 140.

GNSC 250

## The Mechanical Universe (3)

Prerequisite: M ATH 102, M ATH 105, or equivalent. An introduction to physics in which principles manifested in everyday phenomena are applied to the solar system and the universe. Lessons include instruction in calculus required to work with the concepts presented. Advanced computer animation, scientific experiments, and visual techniques are used in clarifying classical mechanics.

## GNSC 251

## The Mechanical Universe and Beyond (3)

(T he second semester of the sequence GN SC 250-251.) Prerequisites: GNSC 250 and M ATH 140 (or equivalent). Further study of physics extending from classical mechanics to the concepts of modern physics. The focus is on topics such as electricity and magnetism, relativity, optics, and heat and thermodynamics. Advanced computer animation, scientific experiments, and visual techniques are used.

GNSC 361

## Global Environmental Change (6)

(Also listed as BEH S 361 and H U M N 360. Yields 3 natural science credits and either 3 humanities credits or 3 social science credits. Fulfills the historical and international perspective requirements.) An in-depth examination of environmental changes that many believe are caused by human adaptations to Earth's natural resources, and the possible effects on both the global biosphere and the human condition. Scientific and social issues are explored through various questions: Is global warming really happening? W ill sea levels rise as predicted by some? W hat are the consequences of massive deforestation? W hat can be done when there is so much scientific uncertainty and global social diversity? The concept of sustainability, as it applies to human interactions with the environment, is emphasized. Students may receive credit for only one of the following courses: BEH S 361, GNSC 361, or HUMN 360.

GNSC 398

## Special Topics in General Science (3)

Topics in the sciences of special interest to students and faculty. $M$ ay be repeated to a maximum of 6 credits when topics differ.

GNSC 398A

## Aviation Science (3)

(For students specializing in both science and nonscience disciplines. Fulfills the Federal Aviation Administration's academic program requirement for the private pilot certificate.) An examination of the physical sciences governing aviation. The basic principles of physics, aerodynamics, atmospheric structure, meteorology, navigation, electricity, electronics, combustion, geography, cartography, and mathematics are integrated to explain the fundamentals of powered flight. A survey of air traffic control and surveillance methods and regulations in contemporary society are also discussed. Students may receive credit for only one of the following courses: GNSC 398A or GNSC 398D.

## GNSC 398B

## Introduction to Biotechnology and Genetic Engineering (1)

(For students specializing in both science and nonscience disciplines.) An introduction to the basic principles and applications of biotechnology and genetic engineering to medicine, agriculture, and industry. Topics include gene therapy, cloning, the identification and isolation of genes involved in human health and disease, diagnostic and forensics testing, the human genome project, bioremediation, microbial and plant bioengineering, and bioinformatics.

## GNSC 398C

## The Biology of Cancer (3)

(Science background not required.) An overview of the biological basis of cancer. The development and progression of cancer are considered at the level of cell structure and function. The role of genes and proteins is also examined.

## GNSC 399

## Independent Study in General Science (1-6)

Prerequisite: 6 credits in upper-level GNSC courses. Directed independent study of topics of special interest not covered by regularly scheduled courses in general science. Interested students must find a faculty member to act as their supervisor. M ay be repeated to a maximum of 6 credits when topics differ.

## GEOGRAPHY

## C ourses in geography (designated GEOG) may be applied toward

- the general education requirement in the social and behavioral sciences;
- a secondary specialization in geography or (when appropriate) area studies; and
- electives.

UM UC offers only a limited number of courses each semester in this discipline. To complete a secondary specialization, students may need to take courses at other institutions in the University System of $M$ aryland or to extend the time spent in fulfilling degree requirements. Students are advised to consult a counselor before selecting this discipline as a secondary specialization.

## GEOG 100

## Introduction to Geography (3)

An introduction to the broad field of geography for a general education curriculum. The basic rationale of variations in human occupancy of Earth is presented. Geographic concepts stressed are those relevant to understanding issues of world, region, and locality.

## GEOG 110

## The World Today: A Regional Geography (3)

(For students not specializing in a science.) A geographic examination of major countries and world regions. Topics include the basic interactions of the environmental, cultural, and economic forces that affect major regions of the world.

## GEOG 123 <br> Causes and Implications of Global C hange (3)

An interdisciplinary examination of global change that integrates the perspectives of the physical, chemical, geological, and biological sciences with geographical, economic, sociological, and political knowledge. Included is a review of environmental science relating to weather and climate change, acid precipitation, ozone holes, global warming, and impacts on biology, agriculture, and human behavior. Concepts of how physical, biological, and human behavioral systems interact, and the repercussions that may follow from human endeavors, are studied with regard to the natural, long-term variability of the global environment and the influence mankind may have in perturbing it from its natural evolution. Approaches to decision making and policies related to global change are discussed.

## GEOG 170

## Maps and Map Use (3)

An explanation of the use and interpretation of maps encountered both in everyday reading and in scientific literature. Skills in reading and interpreting maps, analyzing the environment, and orienteering are demonstrated and inculcated.

GEOG 201

## Geography of Environmental Systems (3)

A systematic introduction to the processes and fundamental forms of the atmosphere and Earth's surface. The interactions of climatology, hydrology, and geomorphology are highlighted.

GEOG 202

## The World in Cultural Perspective (3)

(Fulfills the international perspective requirement.) An exploration of the imprint that cultural traits (such as religion, language, and livelihood systems) have left on the landscape of this planet. The transformation of Earth's surface is examined in terms of being a result of cultural evolution, cultural diversity, settlement patterns, population growth, and political organization.

## GEOG 203

## Economic Geography (3)

An overview of the spatial characteristics of worldwide economic activities. Aspects investigated include population patterns, technology and economic development, spatial interactions in trade, transportation networks, the location of industries and services, the city as an economic node, and the production of and trade in agricultural and energy products.

## GEOG 321

## M aryland and Adjacent Areas (3)

An examination of the physical environment, natural resources, and population as they relate to agriculture, industry, transport, and trade in $M$ aryland and adjacent areas.

## GEOG 325

## Russia and the Commonwealth States (3)

(Formerly Soviet Union. Fulfills the international perspective requirement.) A study of Russia and the Commonwealth States as a functioning geographic system, including the area's ethnic and cultural diversity, historical development, resource base, and economic regions. The characteristics of the current reationship between Russia and the Commonwealth States are also covered. Students may receive credit only once under this course number.

## GEOG 326

## Africa (3)

(Fulfills international perspective requirement.) A geographical study of the physical features, climates, and political and cultural regions of sub-Saharan Africa. The distribution of population and resources, current levels of economic and social well-being, development projects and the constraints that face them, and migration trends are topics of discussion.

## GEOG 330

## East Asia (3)

(Fulfills the international perspective requirement.) A study of the geographic characteristics of China, Japan, and K orea. Physical settings, climates, population distribution, cultural and linguistic regions, distribution of resources, development projects, and contemporary problems are taken into consideration.

## GEOLOGY

## Courses in geology (designated GEOL) may be applied toward

- the general education requirement in the biological and physical sciences;
- a secondary specialization in geology; and
- electives.

U M UC offers only a limited number of courses each semester in this discipline. To complete a secondary specialization, students may need to take courses at other institutions in the University System of M aryland or to extend the time spent in fulfilling degree requirements. Students are advised to consult a counselor before selecting this discipline as a secondary specialization.

GEOL 100

## Physical Geology (3)

A survey of the rocks and minerals composing Earth, its surface features and the agents that form them, and the dynamic forces of plate tectonics. Students may receive credit for only one of the following courses: GEOL 100 or GEOL 101.

GEOL 110

## Physical Geology Laboratory (1)

(Fulfills the laboratory science requirement.) Prerequisite or corequisite: GEOL 100, GEOL 101, or GEOL 120. An introduction to the basic materials and tools of physical geology, stressing familiarization with rocks and minerals and the use of maps in geologic interpretations.

GEOL 375

## General 0 ceanography (3)

An introduction to the processes shaping the marine environment. Focus is on the geological and biological processes that contribute significantly to the geological record and to the environment.

## GERMAN

## C ourses in German (designated GERM) may be applied toward

- the foreign language requirement for the B.A.;
- the general education requirement for international perspective coursework;
- a primary or a secondary specialization in area studies (when appropriate);
- a secondary specialization in foreign languages; and
- electives.

UM UC offers a limited number of foreign language courses each semester.

## GERM 101

## Elementary German I (4)

( $O$ pen only to students with fewer than two years of $G$ erman. Fulfills the international perspective requirement.) An introduction to basic structures and pronunciation that teaches the four skills: listening, speaking, reading, and writing. Readings concern the current life style and civilization of the German-speaking world.

GERM 102

## Elementary German II (4)

(A continuation and completion of GERM 101. Fulfills the international perspective requirement.) Prerequisite: GERM 101 or equivalent. A continuation and completion of the introduction of basic structures and the continuation of the students' involvement with the civilization of the Germanspeaking world.

GERM 201

## Intermediate German I (4)

(Fulfills the international perspective requirement.) Prerequisite: GERM 102. A review of grammar with an emphasis on idioms, mastery of vocabulary, conversational fluency, and compositional skills. Readings focus on the life style and civilization of the German-speaking world of today. Students may receive credit for only one of the following courses: GERM 201 or GERM 104.

## GERONTOLOGY

## C ourses in gerontology (designated GERO) may be applied toward

- a primary or a secondary specialization in gerontology;
- supporting credit for a primary or a secondary specialization in other social or behavioral sciences; and
- electives.

A description of the curriculum begins on p. 33.
GERO 210

## Social Gerontology (3)

An overview of the processes of aging and the older person's place in society. Aging is defined chronologically, functionally, biologically, sociologically, and psychologically. Demographic changes in the average age of the population of the United States are discussed. Other areas examined include social structure and processes such as family and kinship patterns, the roles of work and retirement, health versus illness, and social roles. Life-cycle socialization, including values, beliefs, and cultural norms, is discussed. O ther topics include the development of agerelated social assumptions, stereotypes, and myths; intergenerational issues; theories of disengagement; and the effects of ethnic, racial, and socioeconomic identity on aging.

## GERO 220

## Psychological Aspects of Aging (3)

A review of normal and pathological changes associated with the process of aging. Topics include sensory, perceptual, and psychomotor processes; mental ability, drives, motives, and emotions; intelligence, memory, and cognitive functions; depression; neurological changes; Alzheimer's disease and related dementias; stress; life review processes; personality and adjustment; suicide; bereavement; and treatment modes. Emphasis is on the normal aging process, normal versus pathological changes in the elderly (according to current research), and understanding the difference between the two.

## GERO 302

## Health and Aging (3)

An exploration of the physiological processes of aging that covers normal aging and chronic illness. Topics discussed include biological processes and theories of aging, bodily changes normally associated with aging, health care and long-term care systems, and related medical terminology. Also reviewed are substance abuse, environmental factors affecting aging, and ways of promoting health, preventing disease, and assessing health risks.

GERO 304

## Aging, Public Policy, and the Law (3)

A systematic overview of how federal, state, and local governments affect the health and welfare of older persons in the United States. Topics reviewed include the economics of aging, public policy and the aged, and legal rights of elders and their families. Specific areas for consideration include income-maintenance programs, protective services, patients' rights, advocacy, and retirement and pension issues.

## GERO 341

## Long-Term-C are Administration I (3)

A framework for understanding institutionally based longterm care, specifically nursing home care. Topics include financing nursing home care, M edicare issues in nursing homes, staffing the nursing home, personnel management, and patient care processes. Emphasis is on care and personnel in the nursing home industry, including general administration and organization of care, team development, staff turnover, medical and patient care planning, and employment needs and issues.

## GERO 342

## Long-Term-C are Administration II (3)

(Continuation of GERO 341.) Further study of institutionally based long-term-care facilities. Emphasis is on accounting and financial management in long-term-care facilities. Topics include pertinent laws and regulatory codes, including $M$ edicare and $M$ edicaid, the $N$ ursing $H$ ome Reform Act, the State of $M$ aryland Regulations, and fire and safety codes. Q uality assurance and marketing issues are al so discussed.

## GERO 351

## M anagement of Senior H ousing Environment (3)

A framework for backgrounds and training of retirementhousing professionals. Topics include regulatory standards and processes for H ousing and Urban D evelopment senior housing structures, environmental design, behavioral and environmental interaction, dietary services, continuity of care, differentiation of management needs in various formats of senior housing, personnel, programming, and medical and personal care services.

## GERO 495 <br> Special Topics in D evelopment and Health (1-3)

Specialized study in gerontology and related topics. May be repeated to a maximum of 6 credits when topics differ.

## GERO 496

Special Topics in Social and Family Relations (1-3)
Specialized study in gerontology and related topics. M ay be repeated to a maximum of 6 credits when topics differ.

## GERO 496T

## Adult D ay-C are Services (3)

A survey of the concepts and skills required in communitybased group programs serving adults. Topics include history and legislation of adult day-care services, needs of adults with functional impairments, program development, marketing, and management. Supervised visits to community-based service providers may also be included.

## GERO 497

## Special Topics in Administration and Planning (1-3)

Specialized study in gerontology and related topics. May be repeated to a maximum of 6 credits when topics differ.

## GOVERNMENT AND POLITICS

## C ourses in government and politics (designated GVPT) may be applied toward

- the general education requirement in the social and behavioral sciences;
- a primary or a secondary specialization in government and politics;
- a primary or a secondary specialization in area studies (when appropriate) or behavioral and social sciences; and
- electives.

Certain courses may also be applied toward supporting credit for a primary or a secondary specialization in business and management, economics, history, management, paralegal studies, sociology, sociology/anthropology, or other areas as approved by a counselor.

A description of the curriculum begins on p. 34.
GVPT 100

## Principles of G overnment and Politics (3)

(Fulfills the general education requirement in the social sciences.) A study of the basic principles and concepts of political science.

## GVPT 170

## American Government (3)

A comprehensive study of government in the United Statesnational, state, and local.

GVPT 200

## International Political Relations (3)

(Fulfills the international perspective requirement and the general education requirement in the social sciences.) A study of the major factors underlying international relations, the methods of conducting foreign relations, the foreign policies of the major powers, and the means of avoiding or alleviating international conflicts. Students may receive credit for only one of the following courses: GVPT 200 or GVPT 300.

## GVPT 210

## Introduction to Public Administration and Policy (3)

An introduction to the study of the administrative process in the executive branch. The concepts and principles of administration are examined, then placed in the context of their relationship to public policy. Organizational structure and theory are analyzed; the behavior of participants in the administration of policy is probed.

## GVPT 240

## Political Ideologies (3)

(Fulfills the international perspective requirement.) A survey and an analysis of the leading ideologies of the modern world. Anarchism, communism, socialism, fascism, nationalism, and democracy are major topics.

GVPT 260

## State and Local Government (3)

A study of the functioning and the problems of state and local government in the United States. Illustrations are drawn from $M$ aryland jurisdictions.

GVPT 272

## Politics of Race Relations in the United States (3)

An examination of the political dimension of historical and contemporary racial cleavage in the United States. Particular emphasis is on the period after World War II.

GVPT 282

## The Government and Politics of the Third World (3)

(Fulfills the international perspective requirement.) A study of how the internal politics of Third W orld nations develop. The governmental institutions, processes, and problems of the Third World are evaluated in light of the socioeconomic environments that are common to most of the states of Africa, the M iddle East, Asia, and Latin America.

GVPT 306

## Global Ecopolitics (3)

(Fulfills the international perspective requirement.) An assessment of controversial worldwide problems. Topics may include growth and its limitations, agricultural productivity, the depletion of resources, the energy crisis, pollution, and the general effects of science and technology on the ecological, socioeconomic, and political systems of the world. These problems are considered as objects of public policy.

GVPT 399

## Seminar in Government and Politics (3)

(N ot open to graduate students.) Prerequisite: A 200-level GVPT course. Reading, research, discussion, analysis, and writing on politics. Both substantive issues and methodological approaches are considered.

GVPT 399B
The Legislative Process and Lobbying Techniques (3)
An introduction to the organization and functioning of Congress. Its basic rules and procedures are presented, with discussion of how it is influenced by lobbyists. Practical as well as academic study of how a bill becomes law, along with an introduction to the techniques of lobbying, is introduced.

## GVPT 399C

## Lawyers and the Adversary System (3)

An overview of the adversary system of justice, from the perspective of lawyers, their clients, and society as a whole. Topics include the basic structure of the adversary system, criminal law, the social and ideological foundations of the adversary system, and the peculiar role of lawyers in the system. C omparisons are made with the legal systems of several European countries and the People's Republic of C hina. Assignments include debating two topics related to the adversary system.

## GVPT 401

## Problems of World Politics (3)

(Fulfills the international perspective requirement.) A study of governmental problems of international scope. M ajor topics include causes of war, problems of neutrality, and propaganda. Assignments include reports on readings from current literature.

## GVPT 401A

## International Political Terrorism (3)

An examination of the development of international political terrorism since the 1970s. Issues investigated may include the definition of terrorism; the historical antecedents of modern terrorism; the motivations, organizations, and support networks of terrorists; the nature of crisis management; the responses of the world community; the effects of terrorism on free societies; and the linkages of terrorist states to international terrorism. The ability of civilization to withstand this type of attack upon its fabric is discussed.

## GVPT 401B

## State Terrorism (3)

An exploration of the use of terror and political violence by governments, against their own citizenry or against other nations, in the furtherance of national goals. Review begins with the Reign of Terror in revolutionary France and culminates with a recent 20th-century example, the invasion of Kuwait by Iraq.

## GVPT 402

## International Law (3)

A study of the basic character, general principles, and specific rules of international law. Emphasis is on recent and contemporary trends in the field. The relationship of law to the other aspects of international affairs is analyzed as well.

GVPT 403
Law, M orality, and War (3)
An exploration of fundamental moral and legal issues concerning war.

GVPT 405
D efense Policy and Arms Control (3)
A survey of contemporary issues of military strategy and international security. The processes of formulating defenserelated political and economic policy are examined. Topics include nuclear war and conventional (limited) warfare, insurgency by guerrillas, arms control and disarmament, and the possibilities for moderation of war.

GVPT 411

## Public Personnel Administration (3)

A survey of components of public personnel administration. Topics include the development of the merit civil service, the personnel agency, classification, recruitment, examinations and techniques of administering them, promotion, service ratings, training, discipline, employee relations, and retirement.

## GVPT 413

## G overnmental $\mathbf{O}$ rganization and $M$ anagement (3)

A study of the theories of organization and management in U.S. government. N ew trends, experiments, and reorganization are major topics.

GVPT 414

## Administrative Law (3)

A study of the discretion exercised by administrative agencies. Their functions, their powers over persons and property, their procedures, and judicial sanctions and controls are analyzed.

GVPT 426

## Public 0 pinion (3)

An examination of public opinion and its effect on political action. Emphasis is on propaganda, pressure groups, and the formation and measurement of opinions.

GVPT 431

## Introduction to C onstitutional Law (3)

A systematic inquiry into the general principles of the U.S. constitutional system. Special reference is made to the role of the judiciary in interpreting and enforcing the federal Constitution.

GVPT 433

## The Judicial Process (3)

An examination of judicial organization in the United States at all levels of government. Some emphasis is on legal reasoning, legal research, and court procedures.

GVPT 434
Race Relations and Public Law (3)
A political and legal examination of rights protected by the C onstitution as they affect racial minorities. The C onstitutional powers of the federal courts, the executive branch, and Congress to define, protect, and extend those rights are probed.

GVPT 436

## Legal Status of Women (3)

An examination of judicial interpretation and application of common, statutory, and Constitutional laws as they affect the status of women in American society.

GVPT 442

## History of Political Theory: Middle Ages to Present (3)

(Fulfills the historical perspective requirement.) A survey of the principal political theories set forth in the works of thoughtful writers from Niccolò M achiavelli to John Stuart M ill.

GVPT 444

## American Political Theory (3)

(Fulfills the historical perspective requirement.) A study of the development and growth of American political concepts from the colonial period to the present.

GVPT 451
Foreign Policy of Russia and States of the Former
Soviet Union (3) Soviet Union (3)
(Fulfills the historical and international perspective requirements.) A study of the development of the foreign policy of Russia and the other states of the former Soviet Union. The processes of policy formation and the forces and conditions that make for continuities and changes are also examined. Students may receive credit only once under this course number.

## GVPT 452

## Inter-American Relations (3)

(Fulfills the historical perspective requirement.) An analytical and historical study of the policies of the United States toward Latin America. Focus is on examining problems in relations with particular countries and discussing recent political developments.

GVPT 453

## Recent East Asian Politics (3)

(Fulfills the historical and international perspective require ments.) A perspective on the background of recent political events in East Asia. Interpretation of the influence of those events on worldwide politics is included.

GVPT 454

## C ontemporary African Politics (3)

A survey of contemporary developments in the international politics of Africa. Special emphasis is on the role of an emerging Africa in world affairs.

## GVPT 455

## C ontemporary Middle Eastern Politics (3)

(Fulfills the historical and international perspective requirements.) A survey of contemporary developments in the international politics of the M iddle East. Special emphasis is on the role emerging M iddle Eastern nations have been taking in world affairs.

GVPT 457

## American Foreign Relations (3)

(Fulfills the historical perspective requirement.) A study of the principles and machinery of American foreign relations. Emphasis is on the conduct of the U.S. D epartment of State and the Foreign Service. Analysis of the major foreign policies of the United States is provided.

## GVPT 460

## State and Local Administration (3)

A study of the administrative structure, procedures, and policies of state and local governments. The focus is on the state level and on intergovernmental relationships. Illustrations are drawn from M aryland governmental arrangements.

## GVPT 461

## M etropolitan Administration (3)

An examination of problems facing administrators of public services, planning, and coordination in a metropolitan environment.

GVPT 473

## Legislature and Legislation (3)

A comprehensive study of the organization, procedures, and problems involved in legislation. O pportunities for contact with C ongress and with the legislature of $M$ aryland are provided.

GVPT 474

## Political Parties (3)

A descriptive and analytical examination of American political parties, nominations, elections, and political leadership.

GVPT 475
The Presidency and the Executive Branch (3)
An examination of the various roles of the president in the political process of the United States. The president's involvement in legislative matters, the president's function in the executive branch, and the president's role in his or her political party are assessed.

GVPT 479

## Problems in American Public Policy (3)

A study of the background and interpretation of various factors that affect the formation and execution of American public policy.

GVPT 480

## C omparative Political Systems (3)

A study, along functional lines, of major political institutions, such as legislatures, executives, courts, bureaucracies, public organizations, and political parties.

GVPT 481

## Government and Administration of Russia and the States of the Former Soviet Union (3)

(Fulfills the international perspective requirement.) A comparative study of the governmental systems and political processes of the states of the former Soviet Union. Students may receive credit only once under this course number.

GVPT 482

## Government and Politics of Latin America (3)

(Fulfills the international perspective requirement.) A comparative study of the governmental systems and political processes of the countries of Latin America. The cases of Argentina, Brazil, Chile, and M exico are evaluated.

## GVPT 483

## Government and Politics of Asia (3)

(Fulfills the international perspective requirement.) A comparative study of the political systems of C hina, Japan, India, and other selected Asian countries.

GVPT 484

## Government and Politics of Africa (3)

(Fulfills the international perspective requirement.) A comparative study of the governmental systems and political processes of the countries of Africa. Special emphasis is on the problems of nation-building in emerging countries.

## GVPT 485

## Government and Politics of the Middle East (3)

(Fulfills the international perspective requirement.) A comparative study of the governmental systems and political processes of the countries of the M iddle East. Special emphasis is on the problems of nation-building in emerging countries.

## HEALTH

C ourses in health (designated HLTH) may be applied toward

- supporting credit for appropriate primary or secondary specializations; and
- electives.

C ourses in this discipline do not fulfill the general education requirement in the biological and physical sciences.

HLTH 106
D rug Use and Abuse (3)
An interdisciplinary analysis of contemporary issues and problems with drugs. The use and the abuse of drugs are explored from historical, social, psychological, philosophical, physiological, legal, and health-related perspectives. Special attention is focused on the general motivations for drug use that pertain to life on the college campus.

HLTH 285

## C ontrolling Stress and Tension (3)

An analysis of the many health problems related to stress and tension. C ausative psychosocial stressors and intervening physiological mechanisms are highlighted, with emphasis on the prevention and control of stress by means of techniques such as biofeedback, meditation, and neuromuscular relaxation.

HLTH 377
Human Sexuality (3)
A comprehensive exploration of biological and developmental aspects of human sexuality. Topics include the psychological and emotional aspects of sexual identity; the historical, cultural, social, linguistic, legal, and moral forces affecting sexual issues; the importance of communication, disclosure, and intimacy in interpersonal relationships; and research trends in the field of human sexuality.

## HLTH 450 <br> Health of Children and Youth (3)

A study of the health of 5 - to 18 -year-olds. Physical, mental, social, and emotional health is examined. Information about psychosexual development, diet, exercise, recreation, and the roles of parents and teachers is included in the discussions.

## HLTH 471

## Women's H ealth (3)

An exploration of the women's-health movement from the perspectives of consumerism and feminism. The relationship of physician and patient is considered in relation to the gynecological examination and other medical settings. 0 ther topics include gynecological problems, pregnancy, contraception, breast cancer and cervical cancer, abortion and other surgical procedures, and the psychological aspects of gynecological concerns.

## HLTH 498

## D irected Studies (3)

Study of topics of special interest in areas not covered by regularly scheduled courses. M ay be repeated to a maximum of 6 credits when topics differ.

## HEALTH SERVICES MANAGEMENT

## C ourses in health services management (designated H M GT) may be applied toward

- a primary or a secondary specialization in health services management or management studies;
- supporting credit for a management-related primary or secondary specialization and other primary or secondary specializations as approved by a counselor; and
- electives.

A description of the curriculum begins on $p$. 34. Descriptions of other management-related curricula may be found on the following pages: accounting ( p .16 ), business and management (p. 18), environmental management (p. 31), fire science (p. 32), hotel and restaurant management (p.37), management (p. 41), management studies (p. 43), and technology and management (p.48).

H M GT 100

## Introduction to Health Services (3)

An overview of the organization and functions of various health services systems, with an emphasis on evaluating them, their interrelationships, and their implications for the future. The effects of social, political, economic, historical, and scientific factors on health care systems are explored.

## H M GT 310 <br> Health Services Policies (3)

Prerequisite: BM GT 230 or equivalent. An overview and analysis of public policies that govern the organization, delivery, and financing of health services in the United States. Particularly considered are public policy objectives, the decision processes of formulating and implementing objectives and programs, and the effectiveness of major governmental programs. Topics include the effects of rising health care costs, M edicare and M edicaid, competition and regulation, technology and technology assessment, H M O s and alternative reimbursement systems, the supply and distribution of physicians, the availability of capital, and quality assurance.

HM GT 320

## H ealth Services M anagement (3)

A thorough treatment of the concepts and principles of effective managerial leadership in a health services organization. The management process is explored; major theories and classic literature in the field are reviewed. Emphasis is on critical aspects of managing people: leadership, communication, motivation, and decision making.

## HMGT 322 <br> Health-Services Financial M anagement (3)

Prerequisite: H M GT 320. Instruction in acquiring, allocating, and managing the financial resources of health services systems. Economic and accounting practices are discussed in terms of budget administration, cost analysis, financing strategies, and internal controls. The probable economic consequences of various national health-insurance proposals are also considered.

## HMGT 325 <br> H ealth Services Economics (3)

Prerequisite: H M GT 320. An introduction to contemporary economic theory and its application in the management of health services systems. Competency in the area of health services economics is furthered by a review of basic theoretical concepts and models in health economics. The goal is to examine how economic forces affect the health services sector and how economic tools can be used by managers and incorporated into public policy to improve performance in health services. Students may receive credit for only one of the following courses: HM GT 325 or HMGT 398A.

HMGT 330
Issues in Health Services M anagement (3)
Prerequisite: Any 300-level H M GT course. An exposure to skills of critical thinking that is designed to develop analytical skills in the future managers of health services. Social, cultural, and philosophical issues that directly or indirectly affect the management of health services are addressed and anal yzed. Students may receive credit for only one of the following courses: H M GT 330 or H M GT 398B.

HMGT 398
Special Topics in Health Services Management (1-3)
Prerequisite: Any 300-level H M GT course. Intensive inquiry into special topics in health services management that reflect the changing needs and interests of students and faculty. M ay be repeated to a maximum of 6 credits when topics differ.

HMGT 398C
Research Issues and Methods in Health Services
Management (3)
Prerequisite: Any 300 -level H M GT course. An overview of the basic instrument and methods used in research on the management of health services. Aspects discussed range from the definition of a problem to the presentation of data. Emphasis is on the information that managers of health services need, how managers obtain that information, and how they use such information in making decisions. Specific topics covered are the analysis of needs, evaluation of the effectiveness of programs in health services, and techniques used in reviews for determining rates.

## HMGT 398D

## M anaged C are in H ealth Services M anagement (3)

An overview of concepts, strategies, and current practices of managed health care and managed competition systems in the public and private health services sectors. The roles and responsibilities of entry- and mid-level managers as agents for change in developing federal, state, and local government initiatives to reform the delivery of health services are explored. Various methods used to regulate, monitor, and evaluate the effectiveness and efficiency of managed-care organizations and program activities, particularly in terms of implementation issues and cost containment initiatives, are examined. D iscussion covers financing, contracting, and network management of managed-care systems and highlights health informatics and data required to monitor access, quality, cost, and outcomes of managed-care systems.

HMGT 398E

## Health Communications (3)

An overview of health service communications that use applied commercial marketing concepts and techniques. Topics include using consumer-oriented approaches of social and commercial marketing as the basis for developing health communications between providers and consumers. The roles and responsibilities of entry- and mid-level managers in developing and delivering communications about health delivery systems and benefits are examined. Focus is on concepts and strategies for developing effective health communications in a typical health service program and techniques and paradigms for enhancing organizational efforts to prevent health risk behaviors. C omparisons are made between various frameworks and methods for developing effective health communications from the perspective of health planning and policy.

## HM GT 410

## Introduction to Health Services Planning (3)

Prerequisite: Any 300 -level H M G T course. A review of the methodology of planning effectively for health services. The use of data systems for identifying and anal yzing problems and for forecasting is explored, along with the processes of setting priorities, developing projects, and allocating resources.

HMGT 415
Ethical C onsiderations in Health Services (3)
Prerequisite: Any 300 -level H M GT course. An introduction to contemporary health-related ethical considerations and their implications for providers and consumers of health services. Issues such as abortion, death and dying, research on human subjects, and manipulated genetics are analyzed.

HMGT 416
Legal Aspects of H ealth Services Administration (3)
Prerequisite: H M GT 310. A study of federal and state law designed to provide prospective health services professionals with the knowledge and expertise to avoid many legal pitfalls in providing health care and administering health services facilities. Topics include health-care labor law, screening for drugs, testing for AIDS, medical confidentiality, mal practice, commercial law, and antitrust laws.

HM GT 430

## Health Services M arketing and Strategic M anagement (3)

Recommended: H M GT 410. An introduction to contemporary theories of marketing and strategic management as they apply to the management of health services systems. Discussion of applications of the concepts is intended to increase managerial competency. Students may receive credit for only one of the following courses: HM GT 430 or H M GT 498A.

## HM GT 498

## Special Topics in Health Services Management (1-3)

Prerequisite: H M GT 325 or H M GT 410. An advanced senior-level intensive inquiry into special topics in health services management that reflect the changing needs and interests of students and faculty. $M$ ay be repeated to a maximum of 6 credits when topics differ.

## HMGT 498B

## M anaging Quality in Health Services Systems (3)

Prerequisite: H M GT 325 or H M GT 410. A basic overview of the responsibilities of managers charged with assuring consistent quality in systems that provide health services. Study covers three primary areas: quality assurance (including the assessment of the care of patients, credentialing, and utilization reviews), risk management (including consideration of the liability borne by hospitals and their staffs), and total quality management (including the integration of customers, the empowerment of the workforce, and variation in processes).

## HM GT 498C

## C omparative International H ealth Systems Analysis: A Managerial Perspective (3)

(Fulfills the international perspective requirement.) An overview of the concepts, strategies, and current practices employed by various countries in establishing governance policies and financing approaches for health systems delivery. Discussion covers techniques for analyzing various approaches to the delivery of health services and the governance of health providers. The use of the systems approach in analyzing the dimensions, structure, and development of international health systems is examined, and various paradigms for health systems development are considered. The targeting of comprehensive health services to key constituencies (including employers, employees, the general population, and at-risk populations) is explored. Focus is on use of economic, financial, qualitative, and quantitative tools to review national and regional cost-based approaches to planning and delivering health services and establishing policies on recovery of costs.

HM GT 498D

## Health Insurance Analysis and Issues in Health Systems M anagement (3)

An analysis of major health insurance issues and study of health insurance administration for various health care entities, including managed-care providers. Topics include coverage by $M$ edicare, $M$ edicaid, and other health insurance programs and relationships between health network practices and insurance companies. H ealth insurance planning and programming is examined from the perspective of both businesses and health services providers.

HMGT 498V

## H ealth Information-Systems M anagement (3)

(Also listed as IFSM 498V.) Prerequisite: H M GT 320 or IFSM 300. A study of the use of health information systems to manage the flow of data in various medical professionsa key factor in managing health care costs. The systems perspective is examined in assessing, selecting, and implementing vital processes within the organization. Topics include billing and scheduling systems, accounting and financial information systems, medical records, processing, imaging systems, staffing and work flow, and medical research systems. G overnmental and public policy issues related to the transmittal of health care data are also considered. Students may receive credit for only one of the following courses: HM GT 498 V or IFSM 498 V .

## C ourses in history (designated HIST) may be applied toward

- the general education requirement in the arts and humanities;
- the general education requirement for historical perspective coursework (when appropriate);
- a primary specialization (for the B.A. only) or a secondary specialization in history;
- a secondary specialization in area studies (when appropriate); and
- electives.

A description of the curriculum begins on p. 36 .

## HIST 110

## The Ancient World (3)

(Fulfills the historical and international perspective requirements.) Interpretation of select literature and art of the ancient $M$ editerranean world with a view to illuminating the antecedents of modern culture. $M$ ajor topics include religion and myth in the ancient $N$ ear East; Greek philosophical, scientific, and literary invention; and the Roman tradition in politics and administration. Students may receive credit for only one of the following courses: H IST 110 or HIST 130.

## HIST 111

## The Medieval World (3)

(Fulfills the historical and international perspective requirements.) A survey of the development of Europe in the M iddle Ages. Topics include the role of religious values in shaping new social, economic, and political institutions and medieval literature, art, and architecture. Students may receive credit for only one of the following courses: HIST 111 or HIST 131.

## HIST 112

## The Rise of the West: 1500 to 1789 (3)

(Fulfills the historical and international perspective requirements.) An overview of the development of the national consciousness of peoples in early modern Europe. Topics investigated include the evolution of state power and bureaucracy, religion, economic institutions, art, literature, and science.

## HIST 113

## M odern Europe: 1789 to the Present (3)

(Fulfills the historical and international perspective requirements.) An overview of the evolution of modern nationstates. The industrial-economic structure and demography of Europe are examined as they apply to the emergence of modern secular society.

## HIST 122

## African Civilization to 1800 (3)

(Fulfills the historical and international perspective requirements.) A survey of the history of Africa from earliest times to 1800. Topics include the origins of African societies, N ile Valley civilization, medieval African states and societies, Islam, oral tradition, African slavery and the slave trade, and early African-European interactions. Students may receive credit for only one of the following courses: HIST 122 or HIST 290.

HIST 123

## Sub-Saharan Africa Since 1800 (3)

(N ot open to students who completed H IST 122 before fall 1995. Fulfills the historical and international perspective requirements.) An overview of changes in sub-Saharan African societies since 1800. Topics include European conquest and African resistance in the late 19th century, colonial states and societies, African nationalism, and decolonization and the independence era. Struggles over social, economic, and political changes are emphasized.

## HIST 141

## Western Civilization I (3)

(Fulfills the historical and international perspective requirements. Recommended for students seeking a two-semester survey of European history. M ay be taken independently of HIST 142.) A survey of the history of Western civilization from antiquity through the Reformation. Study begins with the political, social, and intellectual developments that formed the values and institutions of the Western world. Students may receive credit for only one of the following courses: HIST 141 or HIST 241.

HIST 142

## Western Civilization II (3)

(Fulfills the historical and international perspective requirements. Recommended for students seeking a two-semester survey of European history; may be taken independently of H IST 141.) A survey of the history of Western civilization from the Reformation to modern times. Students may receive credit for only one of the following courses: HIST 142 or HIST 242.

HIST 156

## H istory of the United States to 1865 (3)

(Fulfills the historical perspective requirement.) A survey of the U nited States from colonial times to the end of the Civil War. The establishment and development of national institutions are traced. Students may receive credit for only one of the following courses: HIST 156 or H UM N 119.

## HIST 157

## H istory of the United States Since 1865 (3)

(Fulfills the historical perspective requirement.) A survey of economic, intellectual, political, and social developments since the Civil War. The rise of industry and the emergence of the United States as a world power are emphasized. Students may receive credit for only one of the following courses: HIST 157 or HUM N 120 .

## HIST 211

## Women in America Since 1880 (3)

(Fulfills the historical perspective requirement.) An examination of the changing role of women in working-class and middle-class families; the effects of industrialization on women's economic activities and status; and women's involvement in political and social struggles, including those for women's rights, birth control, and civil rights.

## HIST 219

## Special Topics in History (3)

(Fulfills the historical perspective requirement.) An investigation of special topics, problems, and issues in history.

## HIST 251

## Latin American History II (3)

(Fulfills the historical and international perspective requirements.) An overview of the political culture of the republics of Latin America. Themes include nation building, modernization, race relations, economic development, gender, reform and revaluation, and relations between the U inited States and Latin America.

HIST 266
The United States in World Affairs (3)
(Fulfills the historical perspective requirement.) A study of the United States as an emerging world power and of the domestic response to the nation's changing status in world affairs. Emphasis is on the relationship between the internal and the external development of the nation.

## HIST 275

## Law and Constitutionalism in American History (3)

(Fulfills the historical perspective requirement.) An exploration of the relationship between law and the social and political order between 1750 and 1950. Important historical issues- religious liberty, economic development, slavery and the Civil War, the political economy of industrialization, and the creation of the modern state- are discussed from a legal perspective as well as a C onstitutional perspective.

## HIST 285

## East Asian Civilization II (3)

(Fulfills the historical and international perspective requirements.) A survey of the historical development of modern Asia since 1700. The efforts of East Asians to preserve traditional cultures while facing Western expansion in the 18th and 19th centuries are presented; the efforts of those cultures to survive as nations in the 20th century are assessed.

## HIST 301

## Women and Industrial D evelopment (3)

(Fulfills the historical perspective requirement.) An analysis of women's roles in the industrial state. Focus is on the process of industrialization and the ways it changed surrounding cultures and the position of women. Relevant comparisons are drawn from the lives of women of varied cultures and times from the 18th to 20th centuries.

## HIST 306 <br> History of Religion in America (3)

(Fulfills the historical perspective requirement.) A history of religion, religious movements, and churches in America from the early colonial period to the present. Special attention is paid to the relations between church and society.

## HIST 319

## Special Topics in History (3)

(Fulfills the historical perspective requirement.) An investigation of special topics, problems, and issues in history. M ay be repeated to a maximum of 6 credits when topics differ.

## HIST 319A

## History of Terrorism (3)

(Fulfills the historical perspective requirement.) A survey of terrorism in the modern world, investigating the ideology of political violence since 1789. Particular aspects studied include the organization, aims, arms, financing, and composition of terrorist groups, from the 1880s in Russia to the present day worldwide. Various interpretations of the terrorist phenomenon are discussed.

## HIST 319L

## History of D rug Use in America (3)

(Fulfills the historical perspective requirement.) A survey of the problem of drugs- which is not just a modern one. Because drugs have been used and abused on the American continent since earliest times, practices of drug use from pre-C olumbian times to the present are considered. Special emphasis is placed on the origins of modern attitudes about drugs and on the role of the alcoholic in American history. Films, lectures, and various class-participation exercises are used to explore this controversial subject.

HIST 324

## Classical Greece (3)

(Fulfills the historical and international perspective require ments.) A study of the ancient Greeks from H omer to Socrates, from 800 to 400 b.c. The society and religion of the city-state, the Peloponnesian War, the art and literature of Periclean Athens, and the intellectual circle of Socrates are discussed.

## HIST 325

## Alexander the Great and the H ellenistic Age (3)

(Fulfills the historical and international perspective requirements.) A study of the history of the Greeks from 400 to 30 b.c. Topics include Alexander and the changes he wrought in the M editerranean world; the rise of monarchies and leagues; new directions in religion, art, literature, and science; and the $H$ ellenization of the $N$ ear East, including the Jews.

## HIST 326

## The Roman Republic (3)

(Fulfills the historical and international perspective requirements.) A study of ancient Rome during the period 753 to 44 b.c., from its founding to the assassination of Julius C aesar. The focus is on Rome's conquest of the M editerranean world, on the social and political pressures that led to that conquest, and on the consequent transformation and decline of the republic. Students may receive credit for only one of the following courses: HIST 326 or HIST 421.

## HIST 327

## The Roman Empire (3)

(Fulfills the historical and international perspective requirements. $N$ ot open to students who have taken HIST 421.) A study of Roman history from Augustus to H eraclius, from 44 b.c. to a.d. 641 . Topics include the imperial court and government, the diversity of culture in the provinces and cities and the progress of Romanization, Roman religion and its transformation in late antiquity, and the Roman army and defense of the frontiers.

## HIST 330

## Europe in the Early M iddle Ages: 300 to 1000 (3)

(Fulfills the historical and international perspective requirements.) A study of medieval Europe from the Roman empire to that of Charlemagne. The period is examined as a crucible in which classical, Christian, and Germanic elements merged, shaping the civilization of the Latin West. Topics include the concept of authority, cultural trends, and formation of group solidarity. Students may receive credit only once under this course number.

## HIST 331

## Europe in the High Middle Ages: 1000 to 1250 (3)

(Fulfills the historical and international perspective requirements. Recommended as a sequel to H IST 330.) An examination of medieval civilization from the 11th century through the 13 th century. Emphasis is on cultural and political developments of the H igh M iddle Ages. The principal sources of medieval thought and learning, art and architecture, and political theory are explored.
HIST 332

## Europe During the Renaissance and Reformation I (3)

(Fulfills the historical and international perspective requirements.) An assessment of the transformation of continental Europe from 1400 to 1650 , highlighting the changes in modes of Christian piety and the formation of Renaissance culture. M ajor themes include the spread of humanistic ideas, the increasing avail ability of education, and the development of social and intellectual foundations of reformation theology. The effects on the economic structure, as well as the culture of the Western world, are evaluated.

HIST 333

## Europe During the Renaissance and Reformation II (3)

(Fulfills the historical and international perspective requirements. A continuation of HIST 332.) A study tracing the political, social, and cultural issues in Europe through the mid-18th century.

## HIST 335

## Society, Ideas, and Culture in the Old Regime (3)

(Fulfills the historical and international perspective requirements.) A study of Europe during the French Revolution and the N apoleonic period. The focus is on intellectual, social, and cultural movements in revolutionary Europe.
HIST 336

## Europe in the 19th Century: 1815 to 1919 (3)

(Fulfills the historical and international perspective require ments.) C overage of the political, economic, social, and cultural development of Europe from the C ongress of Vienna to World War I.

## HIST 337

## Europe in the World Setting of the 20th Century (3)

(Fulfills the historical and international perspective require ments.) An investigation of the political, economic, and cultural developments of 20th-century Europe, with special emphasis on the factors involved in the two world wars and their worldwide effects and significance.

## HIST 344

## Revolutionary Russia (3)

(Fulfills the historical and international perspective require ments.) An exploration of the roots, dynamics, and conse quences of the Russian Revolution of 1917. M ajor interpre tations of the fall of tsarism, the social and political forces at play, Leninism, and Stalinism are covered. Students may receive credit only once under this course number.

## HIST 347 <br> History of Crime and Punishment (3)

(Fulfills the historical perspective requirement.) A study of the historical development of law-enforcement agencies, criminal jurisdictions, and trial procedure from 1500. Topics include the nature of principal felonies and major trends in crime and penal theory and practice.

## HIST 360

## America in the Colonial Era: 1600 to 1763 (3)

(Fulfills the historical perspective requirement.) An investigation of the founding of the English colonies in America. Topics include the European backgrounds of the colonies, the ressons for the instability of colonial society, the emergence of stable societies after 1689 , and the development of colonial regionalism. Also discussed are political institutions, social divisions, the economy, religion, education, and urban and frontier problems in the 18th century. Students may receive credit only once under this course number.

## HIST 361

## America in the Revolutionary Era: 1763 to 1815 (3)

(Fulfills the historical perspective requirement.) A consideration of the background and direction of the American RevoIution, and the early development of the nation through the War of 1812. Emphasis is on how the revolution shaped American political and social development, including the creation of a new government under the C onstitution and the challenges facing the new nation. Students may receive credit only once under this course number.

## HIST 362

## Ante-Bellum America: 1815 to 1861 (3)

(Fulfills the historical perspective requirement. Recommended preparation: H IST 120 or HIST 156.) An examination of the strong sense of nationalism in the United States after the War of 1812, and its transformation into the sectionalism that led to the C ivil War. Issues contributing to N orth/South antagonism, particularly slavery, are discussed. O ther issues include Jacksonian democracy; capitalism; racism; immigration; M anifest Destiny; and religious, social, and intellectual movements.

HIST 363

## Civil War and New Industrial Society in the United States: 1860 to 1900 (3)

(Fulfills the historical perspective requirement.) A survey of sectional and class conflicts and their effects on American life and institutions from the Civil War through the Gilded Age. The social, economic, and political reconstruction of the Union is analyzed as it affected and was affected by industrialization, urbanization, and technological changes.

## HIST 364

## Emergence of M odern America: 1900 to 1945 (3)

(Fulfills the historical perspective requirement.) A study of the emergence of modern American institutions and identities in the years 1900-45. Topics covered may include the presidencies of McK inley, Roosevelt, Taft, and Wilson; the world wars; the Great Depression; and the period of the New D eal. Special consideration may also be given to emerging issues such as the role of women and blacks, corporate enterprises, and the welfare state.

## HIST 365

## Recent America: 1945 to the Present (3)

(Fulfills the historical perspective requirement.) A survey of U.S. history from the presidencies of Truman and Eisenhower through those of Kennedy, Johnson, Nixon, C arter, Reagan, and Bush, to the present. Topics may include 1960s' radicalism, the Cold War, Vietnam, Watergate, and changes in American society.

HIST 380

## American Relations with China and Japan: 1740 to Present (3)

(Fulfills the historical and international perspective requirements.) An examination of American political, economic, and cultural relations with China and Japan from the American colonial era to the present. Topics encompass diplomacy and power politics; Christian missions; immigration and exclusion; overseas education; art and literature; and trade, investment, and technology. Students may receive credit only once under this course number.

## HIST 392

## History of the Contemporary Middle East (3)

(Fulfills the historical and international perspective require ments.) An exploration of the causes underlying the rise of sovereign nation-states in the M iddle East. Topics include modernization, Westernization, and secularization in a traditional society, and shifting political and economic power groupings in a regional and worldwide context.

## HIST 407

## Technology and Social Change in H istory (3)

(Fulfills the historical perspective requirement.) An investigation of some important ways new technologies have affected social change. An overview of the impact of technology on Western societies is provided and includes topics such as the advent of gunpowder, the development of the printing press, and the introduction of labor-saving machinery. Focus is on the rapid technological changes of the last 50 years and the impact of these changes on societies throughout the world. Discussion covers technology and the nature of work, technology and gender, the communications revolution, biomedical technology, the role of government and business in research and development, and the global impact of technology transfer.

## HIST 413

## History of Medicine and Public Health (3)

(Fulfills the historical perspective requirement.) An overview of the history of medicine and public health from primitive times to the present, covering major medical theories, therapeutics, and techniques; the evolution of the "medicine man" or priest-physician into a professional medical practitioner; and the connections between medicine and society.

## HIST 419

## Special Topics in History (3)

(Fulfills the historical perspective requirement.) An intensive study of special topics in history. M ay be repeated to a maximum of 9 credits when topics differ.

## HIST 436

## The French Revolution and Napoleon (3)

(Fulfills the historical and international perspective requirements.) A study of the causes and course of the French Revolution, with emphasis on the struggle among elites, popular intervention, the spread of counterrevolution, the Terror as repression and popular government, the near collapse of the Republic, and the establishment and defeat of dictatorship.

## HIST 437

## M odern France from Napoleon to de G aulle (3)

(For students who have completed some previous survey of either Western civilization or European history. Fulfills the historical and international perspective requirements.) An examination of the changing political and cultural values of French society in response to recurrent crises during the 19th and 20th centuries.

## HIST 441

## Germany in the 20th Century: 1914 to the Present (3)

(Fulfills the historical and international perspective require ments.) An examination of the history of Germany during the 20th century. Topics include the aims and policies of Germany during World War I, the country's condition and policies in the period between the wars, the rise of national social ism, the outbreak of W orld War II, and postwar conditions. Students may receive credit only once under this course number.

HIST 442
20th-Century Russia (3)
(Fulfills the historical and international perspective requirements.) A history of Russia and the Soviet Union from the fall of the tsars to the postcommunist present. The impact of Leninism, Stalinism, and Soviet communism on state, society, culture, and nationality is covered. Students may receive credit only once under this course number.

## HIST 443

## Modern Balkan History (3)

(Fulfills the historical perspective requirement.) A political, socioeconomic, and cultural history of Bulgaria, Romania, Greece, Albania, and the former Yugoslavia from the breakdown of Ottoman domination to the present. Emphasis is on movements for national liberation during the 19th century and on the region's approaches to modernization during the 20th century.

HIST 451

## Economic History of the United States Since 1865 (3)

(Fulfills the historical perspective requirement.) An overview of the development of the U.S. economy from the Civil War to the present. Emphasis is on macroeconomic policy making and relations among business, government, and organized labor.

HIST 452

## D iplomatic History of the United States to 1914 (3)

(Fulfills the historical perspective requirement.) A survey of foreign relations of the United States from the American Revolution to the beginning of World War I, considering the international developments and domestic influences that contributed to U.S. expansion in world affairs. Analysis focuses on significant figures in U.S. diplomacy and foreign policy.

HIST 453

## Diplomatic History of the United States Since 1914 (3)

(Fulfills the historical perspective requirement. A continuation of HIST 452.) A survey of foreign relations of the United States in the 20th century. The causes and the probIems of World War I, the Great D epression, W orld War II, the C old War, the Korean War, and the Vietnam War are anal yzed.

## HIST 458

## Selected Topics in Women's H istory (3)

(Fulfills the historical perspective requirement.) A survey of selected topics on women in American society, including consideration of ways that women have related to the law and politics, the "feminine mystique," and the "new feminism." $M$ ay be repeated to a maximum of 6 credits when topics differ.

## HIST 459

## Society in America: H istorical Topics (3)

(Fulfills the historical perspective requirement.) A consideration of selected aspects of American society from colonial times to the present. Special emphasis is on concepts of regional ism, immigration, nativism, minorities, urbanization, and social responses to technological changes. M ay be repeated to a maximum of 6 credits when topics differ.

## HIST 459B

## History of Violence in America (3)

(Fulfills the historical perspective requirement.) A survey of violence in the U nited States, with an emphasis on the late 19th century and the 20th century. Theories of conflict and its causes provide a framework for discussing political violence, both past and present. Racial violence in the 20th century is examined. O ther topics of discussion include violence and organized crime, domestic terrorism, violent crimes, student protest, and labor violence.

## HIST 461

## Blacks in American Life: 1865 to the Present (3)

(Fulfills the historical perspective requirement.) An examination of African Americans in the United States since the abolition of slavery. Emphasis is on 20th-century developments, including the migration from farm to city, the growth of the civil rights movement, and the race question as a national problem.

HIST 462

## The U.S. Civil War (3)

(Fulfills the historical perspective requirement.) A study of the U.S. Civil War. Topics include causes of the war; sectional politics and secession; resources and strategies of the Confederacy and the Union; the changing character of the war; emancipation and its consequences; the economic, social, and political conditions of the home front; and the wartime origins of Reconstruction.

HIST 463

## History of the Old South (3)

(Fulfills the historical perspective requirement.) A presentation of the golden age of the C hesapeake. Topics include the institution of slavery, the frontier South, antebellum plantation society, the development of regional identity, and the experiment in independence as it fared during U.S. history.

## HIST 464 <br> History of the New South (3)

(Fulfills the historical perspective requirement.) A study of the South's experience of defeat in the Civil War, the restructuring of Southern society, the effects of industrialization, and modern-day racial adjustments.

## HIST 467

## History of Maryland (3)

(Fulfills the historical perspective requirement.) An examination of the political, social, and economic history of M aryland from the 17th century to the present.

HIST 481

## A History of Modern China (3)

(Fulfills the historical and international perspective requirements.) A survey of modern China, from 1644 to the creation of the People's Republic. The focus is on the origins of the Western influence in China and the various stages of the Chinese reaction.

## HIST 482

## H istory of Japan to 1800 (3)

(Fulfills the historical and international perspective requirements.) An examination of traditional Japanese civilization from the age of Shinto mythology and the introduction of continental learning to the rule of military families, including transition to a money economy and the creation of a town-based culture. A survey of political, economic, religious, and cultural history is covered.

HIST 483

## History of Japan Since 1800 (3)

(Fulfills the historical and international perspective requirements.) A survey of Japan's renewed contact with the Western world and its emergence between 1800 and 1931 as a modern state, an industrial society, and a world power. Japan's road to war, the period of occupation, and the era of recovery are covered, from 1931 to the present.

## HIST 485

## History of Chinese Communism (3)

(Fulfills the historical and international perspective requirements.) An analysis of the various factors in modern Chinese history that led to the victory of the Chinese Communist party in 1949, followed by inquiry into the subsequent course of events in the People's Republic of China. The period from roughly 1919 to the present is covered.

## HIST 487

## History of Soviet/Russian Foreign Relations: 1917 to the Present (3)

(Fulfills the historical and international perspective requirements.) A history of Soviet/Russian foreign relations covering both conventional diplomacy and the spread of the proletarian international movement from the 0 ctober Revolution to the present.

## HIST 492

## The C ontemporary M iddle East (3)

(Fulfills the historical and international perspective requirements.) An examination of the breakup of the 0 ttoman empire and the emergence of contemporary states in the same geographic area.

## HOTEL AND RESTAURANT MANAGEMENT

C ourses in hotel and restaurant management (designated HRMT) cover aspects of management and technical knowledge used in hotels and restaurants, including financial planning, operations, and human resources.

## C ourses in hotel and restaurant management may be applied toward

- a primary or a secondary specialization in business and management, hotel and restaurant management, or management studies;
- supporting credit for a primary or a secondary specialization in business and management, management, or other management-related fields; and
- electives.

The hotel and restaurant management specialization will be discontinued by fall 2001 and is being absorbed into the business and management specialization beginning fall 1999, with limited course offerings. To complete a primary specialization in hotel and restaurant management in the time remaining, students should already have completed at least 12 semester hours of required coursework in the specialization. If all coursework for the primary specialization is not completed by the end of spring 2001, credit earned in H RM T courses may be applied toward a primary specialization in either business and management or management studies. All requirements of the new specialization must be met. Students should consult their team counselor for further information on courses and options.

A description of the curriculum begins on $p$. 37. Descriptions of other management-related curricula may be found on the following pages: accounting ( $p .16$ ), business and management (p. 18), environmental management (p. 31), fire science (p. 32), health services management (p.34), management (p. 41), management studies (p.43), and technology and management (p. 48).

HRMT 303

## H ospitality Facilities 0 perations and M aintenance (3)

A study of basic engineering, public safety, building codes, equipment selection, and design procedures related to the hospitality industry. In addition, all hotel operating departments are reviewed and discussed.

HRMT 401

## Law and the H ospitality Industry (3)

Prerequisite: BM GT 380. A study of laws applicable to the hospitality industry. Topics include the host's responsibility, negligence, liability, contracts, torts, regulations, and insurance.

HRMT 402
H otel Management and $O$ perations (3)
A study of supervision and employee relations, with emphasis on human-relations organization and manpower planning and development. Employee compensation and benefits in the hospitality industry are covered, along with ethics and policies.

HRM T 440

## Financial Analysis for the H ospitality Industry (3)

Prerequisite: BM GT 340. Application of financial analysis techniques to the hospitality service industries. Emphasis is on the needs of management and the financial analysis concepts and techniques necessary for managerial decision making.


## HUMANITIES

## Courses in humanities (designated H U M N) may be applied toward

- the general education requirement in the arts and humanities;
- a primary specialization (for the B.A. only) or a secondary specialization in humanities;
- a primary or a secondary specialization in certain other academic disciplines (counselors can provide details);
- supporting credit for a primary or a secondary specialization in certain other academic disciplines (counselors can provide details); and
- electives.

M ost courses require extensive writing. Students should complete a writing course (EN GL 101, EN GL 391, or EN G L 396) or have equival ent writing experience before enrolling.

A description of the curriculum begins on p. 39.
HUMN 110

## Introduction to the Theatre (3)

(Also listed as THET 110.) An introduction to the people of the theatre: actors, directors, designers, and backstage personnel. Subjects include the core and characteristics of a script, theatrical forms and styles, and theatre history. Students may receive credit for only one of the following courses: H UM N 110 or THET 110.

## HUMN 119

## American Adventure (3)

(Fulfills the historical perspective requirement.) A survey of the early history of the United States, covering the discovery of the New World through the Civil War and Reconstruction. Emphasis is on social history, including the effects of political and social events on women, children, the family unit, African Americans, and Native Americans. The clash between European and $N$ ative American cultures, the violence of the revolution, and trials and tribulations of the early pioneers are explored. M aterials from the telecourse "T he American Adventure" are integrated with the course. Students may receive credit for only one of the following courses: HIST 156 or H UM N 119.

## HUMN 120

## America in Perspective (3)

(Fulfills the historical perspective requirement.) A survey of the second hundred years of the history of the United States, beginning in 1877 with the closing of the American frontier and the move into industrialization. Crucial events and issues in recent history are reviewed, including the Great Depression, the rise of big business, Roosevelt's New D eal, World WarsI and II, the C old War, the Vietnam War, and the civil rights movement. The complex forces and events that have determined the course of modern American history and shaped America as it is today are traced and interpreted. M aterials from the telecourse "America in Perspective" are integrated with the course. Students may receive credit only once under this course number and for only one of the following courses: HIST 157 or H U M N 120.

## HUMN 125

## Introduction to Philosophy (3)

(Also listed as PH IL 100.) An introduction to the literature, problems, and methods of philosophy. The subject is approached either by studying some of the main figures in philosophic thought or by considering some central, recurring problems of philosophy. Students may receive credit for only one of the following courses: H UM N 125 or PHIL 100.

## HUMN 126

Cosmos (3)
(Fulfills the international perspective requirement. D oes not fulfill the general education requirement in science.) An interdisciplinary study of space, time, and the universe. Topics considered include astronomy, interstellar communications, Egyptian hieroglyphics, comparative religion, biology, and genetics. Historical expeditions on this planet are compared and contrasted with the Voyager missions through the solar system. Students may receive credit for only one of the following courses: AST R 398A or H UM N 126.

HUMN 130

## Survey of Music Literature (3)

(Also listed as M USC 130. Fulfills the historical perspective requirement.) An introduction to the major historical styles and forms of Western classical music. Focus is on selected masterworks, their composers and cultural context, and hallmarks of the styles they represent. Works are studied through reading, discussion, and active listening to recordings and live local performances. Students may receive credit for only one of the following courses: H UM N 130, M USC 130, or MUSC 131.

HUMN 140

## Music Fundamentals I (3)

(Also listed as M USC 140.) An introduction to music theory. Notation, scales, intervals, triads, rhythm, form, and basic aural skills are covered. Students may receive credit for only one of the following courses: H U M N 140 or M U SC 140.

HUMN 141

## C ontemporary M oral Issues (3)

(Also listed as PH IL 140.) An exploration of how philosophical analysis can be a foundation for thinking clearly about moral issues. Problems analyzed include such widely debated issues as cloning, abortion, euthanasia, the death penalty, homosexuality, pornography, reverse discrimination, business ethics, sexual equality, and economic equity. Students may receive credit for only one of the following courses: H U M N 141 or PH IL 140.

HUMN 170

## Introduction to Logic (3)

(Also listed as PH IL 170.) A general introduction to the discipline of logic. Traditional and modern deductive techniques are demonstrated and used; informal fallacies are clarified. Students may receive credit for only one of the following courses: H UM N 170 or PHIL 170.

## HUMN 173 <br> Logic and the English Language (3)

(Also listed as PH IL 173.) A presentation of the basic techniques used in analyzing deductive arguments. The goal is to explore the grammar and the logic of English sentences, thereby illuminating the capacity of the English Ianguage to express logical distinctions. Exercises offer opportunities to analyze the logical structure of published writings of varying style and content. Students may receive credit for only one of the following courses: H UM N 173 or PHIL 173.

HUMN 211
Impact of Music on Life (3)
(Also listed as M USC 210. Fulfills the international perspective requirement.) A study of music as a part of culture. M aterials are drawn from traditions throughout the globe to illustrate issues of historical and contemporary significance, including the impact of race, class, and gender on the study of music. Students may receive credit for only one of the following courses: H UM N 211 or M USC 210.

HUMN 236
Philosophy of Religion (3)
(Also listed as PHIL 236. Fulfills the international perspective requirement.) A philosophical study of some of the main problems in religious thought. Topics include the nature of religious experience, the justification of religious belief, the conflicting claims of religion and science, and the relation between religion and morality. Students may receive credit for only one of the following courses: H UM N 236 or PH IL 236.

HUMN 245

## Political and Social Philosophy (3)

(Also listed as PHIL 245.) A critical examination of classical political theories. Examples are drawn from the work of Plato, H obbes, Locke, Rousseau, M ill, and M arx. Contemporary theories such as those of H ayek, Rawls, and recent M arxist thinkers are also covered. Students may receive credit for only one of the following courses: H U M N 245, PHIL 245 , or PH IL 345.

## HUMN 280

## This C onstitution: A H istory (3)

(Fulfills the historical perspective requirement.) A study of constitutional government in the United States in the late 20th century. Emphasis is on the historical events and processes that have made the Constitution what it is today. The principles and institutions of American constitutionalism are critically evaluated from the perspectives of political science and history. The goal is to draw inferences from the materials of constitutional history, politics, and law, so as to form generalizations about the development of the Constitution.

## HUMN 300 <br> M odern M oral Choices (6)

An inquiry into the correlation of ethical theory with the broad range of moral decisions facing contemporary society. Basic ethical theories introduced include utilitarianism, relativism, egoism, and K ant's categorical imperative. The theories are then used to evaluate moral decisions in such fields as medicine, war, religion, birth, death, human sexuality, and professional and personal relations. The connection between moral choices and the law is also examined. Assignments include a detailed ethical analysis of one or more contemporary moral issues.

## HUMN 301

## Crossing Cultures: World Views in the Humanities (6)

(Fulfills the historical and international perspective requirements.) An examination of Western and non-Western roots of human identity viewed from philosophical, cultural, and intellectual perspectives. The ways in which different peoples express their essential intellectual heritage through philosophy, religion, and the arts are studied. Ideas and cultural expression from specific areas of the world, from antiquity through 1750, are explored. Areas covered are Africa, the M iddle East, South Asia, the Far East, the Americas, and Europe. Outcomes of cross-cultural interaction are considered.

## HUMN 307 <br> Asian Philosophy (3)

(Also listed as PHIL 307. Fulfills the international perspective requirement.) An examination of the major philosophical systems of the East, attempting to discover the relations between these and important ideas of Western thought. Students may receive credit for only one of the following courses: HUMN 307 or PHIL 307.

## HUMN 308

M odern Philosophy (3)
(Also listed as PHIL 320. Fulfills the historical and international perspective requirements.) Prerequisite: 3 credits in philosophy. An overview of major philosophical issues of the 16th, 17th, and 18th centuries. Writings of philosophers such as Descartes, Newton, H ume, and K ant are explored. Students may receive credit for only one of the following courses: HUM N 308 or PHIL 320.

## HUMN 310

## Business and Professional Ethics (6)

An examination of the relationship between business and ethics. Various views of what is right and good for people in a corporate society are applied to business practices, institutions, and actions. The moral contexts of both corporate decisions and personal decisions are considered. Concepts of ethics and economic justice are introduced. The nature of the corporation is discussed, with particular emphasis on corporate social responsibility. Examples of the moral dilemmas of conducting business include issues and cases in the areas of hiring procedures, employees' rights and duties (in relation to such matters as privacy, health and safety, and whistle-blowing versus loyalty), professional responsibility, ethics in advertising, consumerism in relation to product liability, multinational operations, and ethics as related to the common environment.

HUMN 332

## The Performing Arts (6)

An examination of contemporary theatre, dance, and music designed to develop a greater appreciation for the distinctive features of live performance. An enhanced understanding of these arts is developed in the context of mid- to late 20thcentury society. Assignments include viewing performances (both live and filmed) in different areas of the performing arts.

## HUMN 334

## Understanding Movies (6)

An analysis of one of the most important means of artistic expression of the 20th century. The goal is to acquire a deeper understanding of the aesthetic qualities of film by considering the stylistic elements of film as it has evolved throughout the century and weighing the special relationship between cinema and literature. Students may receive credit for only one of the following courses: HUMN 334 or HUMN 498D.

## HUMN 336

## Ideas Shaping the 21st Century (6)

(Fulfills the historical perspective requirement.) An overview of predominating ideas and philosophies that may govern and alter humanity and this planet in the early 21st century. Ideas and ways of living are evaluated insofar as they reveal the nature of intelligence and at the same time determine the uses of this planet. These include the rise of science, religions, and technoconsciousness; the development of systems of communication; prevailing perceptions of justice and human relationships; and the "quality of life" as expressed in architecture and the arts.

HUMN 340

## While Soldiers Fought: War and American Society (6)

(Fulfills the historical perspective requirement.) A view of war and American society from historical, literary, artistic, and philosophical perspectives. Focus is on the various ways the United States has dealt with war and on the changes that war has wrought in American society. The Revolutionary War, the Civil War, World War I, World War II, the C old War, and the V ietnam War are investigated. Weighty and provocative questions about war and society are addressed.

## HUMN 342 <br> M oral Problems in Medicine (3)

(Also listed as PH IL 342.) Prerequisite: 3 credits in philosophy or consent of the teacher. A critical exploration of the dimensions of decisions in health-related contexts. Readings are drawn from philosophical, medical, and other sources. Students may receive credit for only one of the following courses: H UM N 342 or PHIL 342.

## HUMN 343

## Sexual Morality (3)

(Also listed as PH IL 343.) A critical examination of practical moral issues bearing on sexual conduct. The resources of moral and social philosophy are used as texts. Students may receive credit for only one of the following courses: HUM N 343 or PHIL 343.

HUMN 345

## Making Decisions (3)

(Also listed as PHIL 340.) Prerequisite: 3 credits in philosophy. Analysis of various approaches to making decisions in personal, professional, and public life. The logic of decision making, risk and probability, moral aspects of making decisions, and the standard biases in judgment are considered. Students may receive credit for only one of the following courses: HUM N 345 or PHIL 340.

HUMN 350

## The Religious Quest (6)

(Fulfills the historical and international perspective require ments.) A comparative exploration of aspects of several religions, emphasizing specific forms of expression and practice. The religions chosen for study are the major faiths of the world in terms of numbers of adherents: H induism, Islam, Buddhism, Judaism, Christianity, and religions of China and Japan. An interdisciplinary approach is used to deal with the religions in their historical, social, literary, artistic, philosophical, and theological aspects.

## HUMN 351

## Myth and Culture (3)

(Fulfills the historical and international perspective requirements.) A presentation of reflections on the interrelations of myth, religion, and culture in which myths are evaluated as embodiments of ethnic and universal ideas. Religion is analyzed within American and non-American cultures. Ideas and symbols from mythology that provide background for literature, music, and art are introduced. M aterials from the telecourse "Joseph C ampbell: Transformations of M yth Through Time" are integrated with the presentation.

## HUMN 360

## Global Environmental Change (6)

(Also listed as BEH S 361 and GN SC 361. Yields 3 social science credits and either 3 humanities credits or 3 natural science credits. Fulfills the historical and international perspective requirements.) An in-depth examination of environmental changes that many believe are caused by human adaptations to Earth's natural resources, and the possible effects on both the global biosphere and the human condition. Scientific and social issues are explored through various questions: Is global warming really happening? W ill sea levels rise as predicted by some? What are the consequences of massive deforestation? W hat can be done when there is so much scientific uncertainty and global social diversity? The concept of sustainability, as it applies to human interactions with the environment, is emphasized. Students may receive credit for only one of the following courses: BEH S 361, GNSC 361, or HUMN 360.

## HUMN 364

## 20th-C entury African American Literature: The Fictional Vision (3)

(Also listed as EN GL 364.) An examination of the development, diversity, and quantity of African American literature, focusing on contemporary novels. A broad range of major African American authors of the 20th century are studied through some of their important but lesser-known works. Readings may include James Weldon Johnson's The Autobiography of an Ex-C oloured Man, Zora N eale H urston's Their EyesWereWatching God, Richard Wright's U nde Tom's C hildren, James Baldwin's Go Tell It on the M ountain, Ann Petry's The Narrows, Paule M arshall's Brown Girl, Brownstones, Toni M orrison's Sula, Alice Walker's M eridian, and Ernest Gaines's A Gathering of Old M en. Students may receive credit for only one of the following courses: EN GL 364 or H UM N 364.

## HUMN 366

## Legacies: A History of Women and the Family in America to 1870 (3)

(Fulfills the historical perspective requirement.) A commentary on the diversity of experience that has confronted American women and families. Three motifs are traced throughout the history of interactions between the family and the social environment: changes and continuities in the division of labor on the basis of gender, the resilience of the family in response to social and economic change, and the relationship between ideals and realities in family life.

## HUMN 375 <br> Social History of Washington, D.C. (6)

A study of the uniqueness of Washington, D.C., through its artistic, architectural, cultural, social, political, and economic history. A city of paradoxes, Washington is a center of power and decision making as well as the domicile of some of the nation's least empowered citizens; home to monuments, museums, and statuary commemorating visionary leaders as well as a seedbed of avant-garde artistic movements; and an urban center built upon limited industrial growth. The paradoxes offer a fertile field for the study of societal juxtapositions. Students may receive credit for only one of the following courses: HIST 351, H UM N 375, or HUMN 498C.

## HUMN 380

## Technology and the Individual (6)

Training in thinking systematically about the intellectual, moral, and social issues raised by advances in technology. Themes include the cultural dimension of technological innovation, the pervasiveness of the machine as a central metaphor in modern life, and the influences of technological change on social choices. C ase studies are used to analyze the interaction of individuals with technological systems and the application of technology to societal purposes.

HUMN 385

## Philosophy and Computers (3)

(Also listed as PH IL 385.) Prerequisite: 3 credits in logic or computer science. A presentation of philosophical issues concerning computers, focusing on nonquantitative treatment of major results in computation theory regarding absolute limits on computers. Fundamental problems concerning computers used as models of human intelligence are examined. Students may receive credit for only one of the following courses: HUMN 385, PHIL 308C, or PHIL 385.

## HUMN 398 <br> Special Topics in the H umanities (1-6)

$M$ ay be repeated to a maximum of 6 credits when topics differ.

## HUMN 399

## Independent Study in H umanities (1-4)

For advanced students. Directed independent study of topics of special interest not covered by regularly scheduled courses. M ay be repeated to a maximum of 6 credits when topics differ.

## HUMN 436

Jazz: Then and Now (3)
(Also listed as M USC 436.) An examination of jazz during the past 75 years-its major styles and its influential artists. Students may receive credit for only one of the following courses: HUM N 436 or M USC 436.

## HUMN 442

## C ontemporary Sexual Ethics (6)

An inquiry into ethical considerations of contemporary sexual behavior. Topics for discussion include the changing dynamics between male and female (modes, expectations, and codes); the increase of sexual activity and freedom (premarital, postmarital, and extramarital); laws, such as those concerning abortion, homosexuality, and rape (whether outside of or within marriage); the sexual rights of women; and speculations as to ethical dimensions of human sexual activity in the future.

## HUMN 447

## Philosophy of Law (3)

(Also listed as PH IL 447.) Prerequisite: 3 credits in philosophy. An examination of fundamental concepts in law, such as the legal system, law and morality, justice, legal reasoning, and responsibility. Students may receive credit for only one of the following courses: H U M N 447 or PH IL 445.

## HUMN 448

## The Musical Symphony (1)

(Also listed as M USC 448B.) An overview of the symphony, from its birth in the courts of the nobility through its growth into the definitive public musical form in the Western concert arena. Topics include the elements of the symphony; its construction, performers, and composers; and its development as a means of expression in a changing culture. Selected works are explored through reading, discussion, and active listening. The goal is to become familiar with broader trends in the symphonic style. Students may receive credit for only one of the following courses: H UM N 448 or M USC 448B.

## INFORMATION SYSTEMS MANAGEMENT

## C ourses in information systems management (designated IFSM ) may be applied toward

- the general education requirement in computing;
- a primary or a secondary specialization in information systems management, computer information technology, computer studies, or management studies;
- supporting credit for a primary or a secondary specialization in other computer-related fields, business and management, management, management studies, technology and management, behavioral and social sciences, and other areas as approved by a counselor; and
- electives.

A description of the curriculum begins on $p$. 40. Descriptions of other computer-related curricula may be found on the following pages: computer and information science (p.25), computer information technology (p. 26), computer science ( p .27 ), and computer studies (p. 27).

## IFSM 201

## Introduction to C omputer-Based Systems (3)

An introduction to the fundamentals of computer-based information systems. H ardware, software, procedures, systems, and human resources are introduced. Integration and applications in business and in other segments of society are assessed. The fundamentals of solving problems by computer are discussed. A brief introduction to the Internet and software packages (e.g., word processing, spreadsheet, and database management) is given. Assignments include selected lab and homework activities in basic information systems software applications such as text processing, spreadsheet usage, database management, and information retrieval from the Internet. All software used operates in a W indows environment. Students may receive credit for only one of the following courses: CAPP 101, CAPP 300, IFSM 201, or TM GT 201.

IFSM 204

## H istory and Future Trends of Computing (3)

(Fulfills the historical perspective requirement.) A historical account of the pioneers of computing and the rise of the computer industry (as well as related industries). Although technical and institutional developments are the focus, developments are explained in a broader historical context. Factors such as the state of scientific knowledge, economic conditions, defense requirements, the nature of business and financial systems, and governmental policy are taken into consideration.

IFSM 296

## COBOL Programming I (3)

Prerequisite: IFSM 201 or equivalent. An introduction to COBOL, a business-oriented programming language, with some of its standard applications.

IFSM 297

## COBOL Programming II (3)

Prerequisite: IFSM 296 or equivalent. Practice in designing complex systems, sophisticated file structures, and advanced CO BOL facilities for use in business and industry. A programming style is developed that minimizes errors and facilitates modification and maintenance. Students may receive credit for only one of the following courses: CM IS 180 or IFSM 297.

## IFSM 300

## Information Systems in 0 rganizations (3)

(Fulfills the historical and international perspective requirements.) Prerequisite: IFSM 201 or equivalent. An overview of information systems, their role in organizations, and the relation of information systems to the objectives and structure of an organization. H uman aspects, models of systems, and general theory of systems are discussed. Applications are considered, including production, budgeting, planning, decision-support systems, and microcomputer applications in organizations.

## IFSM 302

## Workplace Productivity (3)

Prerequisite: IFSM 201 or equivalent. A survey of techniques for improving the productivity of practices and procedures in the workplace. Teaming (e.g., encouraging employees' participation in group activities, brainstorming, and making meetings more effective) and problem solving (e.g., simplifying work; charting work-flow processes; diagraming causes and effects; and using Pareto analysis, histograms, and total quality management) are the two major approaches emphasized.

IFSM 303
Human Factors in Information Systems (3)
Prerequisite: IFSM 201 or equivalent. A general survey of the application of human factors to the design and use of information systems. The history, development, and current state of development are covered. The contributions of psychology, engineering, and physiology to the development of ergonomics are described.

## IFSM 304

## Ethics in the Information Age (3)

Prerequisite: IFSM 201 or equivalent. An introduction to information systems as used to provide information for decision making in a democratic society. The philosophy, techniques, and ethical considerations involved in evaluating information systems are evaluated.

## IFSM 310

## Software and H ardware Concepts (3)

Prerequisites: IFSM 201 and M ATH 102, or equivalent. An in-depth investigation of computer systems. Emphasis is on the interrelationships of hardware architecture, system software, and application software. The architectures of processors and storage systems are explored. Implications for system software design are covered. The effects of the design of hardware and system software on the development of application programs in a business environment are discussed. Students may receive credit for only one of the follwing courses: CMIS 270, CMIS 310, CM SC 311, or IFSM 310.

## IFSM 320

## 0 ffice Automation (3)

Prerequisite: IFSM 300 or equivalent. An examination of office information systems and decision-support systems as emerging critical elements of data and information systems for business uses. Emphasis is on information-processing considerations at the systems level, including analysis and management of support activities (such as management systems for data and records, systems for electronic filing and retrieving, word processing, micrographics and reprographics, and telecommunications). Interfaces between machines and their users are discussed; current and future technological trends are assessed, and their effects on data processing and the office environment are traced.

## IFSM 390

## Multimedia D esign and Evaluation for Information Systems M anagers (3)

Prerequisite: IFSM 300. An investigation and application of microcomputer-based multimedia systems. Emphasis is on concepts and techniques for creating professional presentations using sound, clip art, video, and text. The Internet is introduced and used as a resource for multimedia projects. $H$ ardware selection is discussed. The effects of multimedia presentations and the social issues involved in their use are examined.

IFSM 410

## D atabase Program D evelopment (3)

Prerequisites: IFSM 296 or equivalent programming experience. An introduction to the design and management of database systems in a business environment. Topics include the role of databases in organizations, the management of information as a critical business resource, types and functions of database management systems, conceptual data modeling, entity-relationship and semantic data models, and the fundamental principles of relational and object-oriented database design. The implementation and maintenance of database management systems and the role of the database administrator are discussed. Students may receive credit for only one of the following courses: IFSM 410 or IFSM 4981.

## IFSM 411

SQL (3)
Prerequisite: IFSM 410 or equivalent. In-depth practice in the use of Structured Q uery Language (SQ L), the most common database manipulation language. The various uses of SQ L are illustrated through business-related case studies. The underlying theory of relations, including relational operators, keys, and entity and referential integrity, is discussed. Students may receive credit for only one of the following courses: IFSM 411 or IFSM 4981.

## IFSM 420

## Advanced D atabase C oncepts (3)

Prerequisite: IFSM 410 or CM IS 320. Investigation and application of advanced database concepts, including database administration, database technology, and the selection and acquisition of database management systems. An intensive practicum in data modeling and system development in a database environment is provided. An overview of future trends in data management is also included.

## IFSM 425

## D ecision Support and Expert Systems (3)

Prerequisite: IFSM 410 or IFSM 411. An analysis of the highest echelon of information support systems, the one that serves the manager user at all levels of decision making. The information provided by such a system is derived from multiple models and databases within and/or external to an organization. Theoretical concepts are applied to real-world applications by anal yzing examples from specific organizations. The development and applications of expert systems are examined via popular software packages.

## IFSM 430

## Information Systems and Security (3)

Prerequisite: IFSM 300. A survey covering aspects of establishing and maintaining a practical information-security program. The security aspects and implications of databases, tele communication systems, and software are examined, along with techniques used to assess risks and discover abuses of systems.

IFSM 438

## Project Management (3)

Prerequisite: IFSM 300 or equivalent. An exposition of planning, scheduling, and controlling a system project during its life cycle. The use of project-management techniques such as PERT (Project Evaluation and Review Technique) and Gantt charts is examined, along with other techniques of planning, scheduling, and controlling projects. Demonstrations and exercises in using project-management software are provided. Students may receive credit for only one of the following courses: IFSM 438 or TM GT 430.

## IFSM 450

## Telecommunication Systems in M anagement (3)

Prerequisites: IFSM 300 and 310. An analysis of technical and managerial perspectives on basic concepts and applications in telecommunication systems. The implications of the regulatory environment and communications standards on transmission of voice, data, and image are examined. O ther topics include an overview of local area networks (LAN s), distributed data processing, and trends in telecommunication. Students may receive credit for only one of the following courses: CM IS 370, CM SC 370 , or IFSM 450.

IFSM 460

## Systems Analysis (3)

(The first course in the two-course series IFSM 460-465.) Prerequisites: IFSM 300 and experience in a high-level programming language. A study of the methods used in analyzing needs for information and in specifying requirements for an application system. Topics covered include the concept of the system life cycle, the iterative nature of the processes of analysis and design, and the methodology for developing a logical specification for a system.

IFSM 465

## Systems D esign (3)

(The second course in the two-course series IFSM 460-465.) Prerequisite: IFSM 460 or equivalent. A study of the concepts and techniques of developing a physical design for an operational system on the basis of the logical design developed in IFSM 460. Implementation of the operational system, integration of computer technology, analysis and design of systems, and aspects of organizational behavior in the design support system are examined.

IFSM 470

## CASE: Technologies, Methodologies, and Management (3)

Prerequisite: IFSM 460 or IFSM 465. A survey and analysis of automated techniques applied in support of structural analysis, design, and programming. Criteria for selecting tools are described. The uses of CASE technology in managing applications development are addressed and assessed. Students may receive credit for only one of the following courses: IFSM 470 or IFSM 498F.

## IFSM 490

## Information-Systems Resource M anagement (3)

Prerequisite: IFSM 300; at least 9 credits in upper-level computing courses recommended. A theoretical study of information-systems resource management. Practical principles of computer technology, systems analysis and design, and organizational theory and design are amalgamated.

IFSM 495
Systems Engineering (3)
Prerequisite: IFSM 300; at least 9 credits in upper-level computing courses recommended. A project-oriented capstone study of systems engineering. Focus is on designing and developing the logical specifications for a system, then tracking the design through the analysis and implementation phases. Research and documentation techniques are stressed.

IFSM 498
Special Topics in Information Systems (1-3)
A seminar on topics in the design and implementation of information-processing systems. M ay be repeated to a maximum of 6 credits when topics differ.

IFSM 498V

## H ealth Information-Systems M anagement (3)

Prerequisite: H M GT 320 or IFSM 300. A study of the use of health information systems to manage the flow of data in various medical professions-a key factor in managing health care costs. The systems perspective is examined in assessing, selecting, and implementing vital processes within the organization. Topics include billing and scheduling systems, accounting and financial information systems, medical records, processing, imaging systems, staffing and work flow, and medical research systems. Governmental and public policy issues related to the transmittal of health care data are also considered. Students may receive credit for only one of the following courses: H M GT 498V or IFSM 498V.

## IFSM 498W

## Java-B ased Information Systems Applications (3)

Prerequisites: Programming experience and IFSM 410. An introduction to the use of Java in designing and maintaining interconnectivity, accessing information, and supplying online information to clients, vendors, and remote staff. Strategies for protecting and securing internet/intranet systems are also examined. Projects include building a Javabased application, such as one part of an electronic commerce system.

## JAPANESE

## C ourses in Japanese (designated JAPN) may be applied toward

- the general education requirement for international perspective coursework;
- a primary or a secondary specialization in area studies (when appropriate);
- a secondary specialization in foreign languages; and
- electives.

UM UC offers a limited number of foreign language courses each semester.

JAPN 105

## Introduction to Japanese Language and Culture (3)

( N ot open to students whose native language is Japanese. Conducted in English; no prior language training required. Fulfills the general education requirement in the humanities and the international perspective requirement. D oes not fulfill the foreign language requirement for the B.A.) An introduction to Japanese language and culture. Emphasis is on practical application.

## Courses in journalism (designated JOUR) may be applied toward

- a journalism emphasis in communication studies;
- a primary or a secondary specialization in communication studies (when appropriate);
- supporting credit for a primary or a secondary specialization in business and management, communication studies, English, or management studies, with the advice and approval of a counselor; and
- electives.

JOUR 201 fulfills the general education requirement in communications.

JOUR 201

## Writing for the Mass Media (3)

Recommended: 30 wpm typing ability. An introduction to writing news, features, and publicity pieces for the printed media and the electronic media. Instruction in developing news concepts is included, along with a laboratory in newsgathering tools and writing skills.

JOUR 202

## Editing for the M ass Media (3)

Prerequisite: JOUR 201. Presentation of the basic editing skills that apply to all mass media. Copyediting, graphic principles and processes, and news-media technology are surveyed. Students may receive credit for only one of the following courses: JOUR 202 or JOUR 310.

JOUR 320

## News Reporting (3)

Prerequisite: JO UR 202. A survey of the principles and practices of news reporting. Special emphasis is on gathering news for all the media and on covering news beats and other news sources. Researching a news story for accuracy, comprehensiveness, and interpretation is covered.

## JOUR 330

## Public Relations Theory (3)

Prerequisite: JOUR 201. A study of the historical development and contemporary status of public relations in business, government, associations, and other organizations. Communication theory and social science methodology are studied as they apply to the research, planning, communication, and evaluation aspects of the public relations process.

## JOUR 331 <br> Public Relations Techniques (3)

Prerequisite: JOUR 330. A review of the techniques of public relations. Emphasis is on news releases, publications and printed materials, speeches, special events, and audiovisual media. Techniques are applied in laboratory and field projects. Students may receive credit only once under this course number and for only one of the following courses: BM GT 398 U or JOUR 331.

## JOUR 334 <br> Public Relations Programs (3)

Prerequisite: JOUR 330. Analysis of eight major programs typically carried out by public relations: employee relations, media relations, financial relations, member relations, governmental relations, community relations, fund raising, and dealing with an activist public.

## JOUR 340

## Advertising Communication (3)

Prerequisite: JOUR 202. An exploration of advertising within mass communication and an evaluation of its role in the public-information system of the U nited States. The application of communication theory and research methods to the research, planning, communication, and evaluation aspects of global advertising are discussed.

JOUR 341

## Advertising Techniques (3)

Prerequisite: JOUR 340. A study of theory and practice in writing and producing advertisements for the print and broadcast media. O pportunities for applying techniques are provided through laboratory and field projects.

## JOUR 345

## Advertising Campaigns (3)

Prerequisite: JOUR 341. A discussion of ways to plan and execute advertising campaigns in typical situations that arise in an advertising agency. Integration of advertising theories and techniques into a complete campaign is covered.

## JOUR 371

## M agazine Article and Feature Writing (3)

Prerequisites: JOUR 100 and 201. A study of the types of feature articles, particularly in the magazine market. The medium and its specialized audiences are analyzed. Practice in researching and writing the feature article, and in evaluating freelance markets, is an integral feature of the course.

JOUR 380
Science Writing for M agazines and Newspapers (3)
Prerequisite: JOUR 320. An introduction to writing and editing scientific and technical material for both the general audience and the specialist.

JOUR 400

## Law of M ass Communication (3)

(N o previous study of law required; however, a fundamental knowledge of U.S. government is essential.) Recommended: GVPT 170 or equivalent. A review of the fields of law that affect the working journalist: copyright, FCC, defamation, invasion of privacy, freedom of information, and freedom of speech and the press. Traditional limits on speech in the areas of advertising, obscenity, and criminal justice are also examined.

JOUR 410

## History of Mass Communication (3)

(Fulfills the historic perspective requirement.) A discussion of the development of newspapers, magazines, radio, television, and motion pictures as media of mass communication. The influence of the media on the historical development of the nation is considered.

## JOUR 459

## Special Topics in M ass C ommunication (3)

(O pen to all students.) Study of issues of special concern and current interest. $M$ ay be repeated to a maximum of 6 credits when topics differ.

## KOREAN

## C ourses in K orean (designated KO RN) may be applied toward

- the general education requirement for international perspective coursework;
- a primary or a secondary specialization in area studies (when appropriate);
- a secondary specialization in foreign languages; and
- electives.

UM UC offers a limited number of foreign language courses each semester.

KORN 105

## Introduction to Korean Language and Culture (3)

( N ot open to students whose native language is K orean. Conducted in English; no prior language training required. Fulfills the general education requirement in the humanities and the international perspective requirement. D oes not fulfill the foreign language requirement for the B.A.) An introduction to Korean language and culture. Emphasis is on practical application.

## LIBRARY SKILLS

C ourses in library skills (designated LIBS) may be applied toward

- electives only.

LIBS 100

## Introduction to Library Research (1)

An introduction to the scope of library resources. Experience in selecting research topics and using advanced techniques to retrieve information on topics of professional or personal interest is provided through the process of preparing a research pathfinder or a bibliography. Topics include the use of libraries, online computer-search services and databases, government documents and technical reports, and indexes and abstracts of periodicals. Students may receive credit for only one of the following courses: COM P 111 or LIBS 100.

MANAGEMENT

## Courses in management (designated M G M T) may be applied toward

- a primary or a secondary specialization in business and management, management, or management studies;
- supporting credit for a management-related primary or secondary specialization and other primary or secondary specializations as approved by a counselor; and
- electives.

Selected courses are offered each semester in a distance education format through the National Universities D egree Consortium.

The management specialization will be discontinued by fall 2001 and is being absorbed into the business and management specialization beginning fall 1999, with limited course offerings. Students are urged not to select management as a primary specialization if they have not already completed at least 12 semester hours in the specialization, including required courses. If all coursework for the primary specialization is not completed by the end of summer 2001, credit earned in M GM T courses may be applied toward a primary specialization in either business and management or management studies. All requirements of the new specialization must be met. Students should consult their team counselor for further information on courses and options.

A description of the curriculum begins on $p$. 41. Descriptions of other management-related curricula may be found on the following pages: accounting ( p .16 ), business and management (p. 18), environmental management (p. 31), fire science ( $p .32$ ), health services management ( $p .34$ ), hotel and restaurant management (p. 37), management studies (p. 43), and technology and management (p.48).

## M GMT 300

## Leadership and M anagement in an Age of D iversity (3)

An exploration of the challenges to effective leadership and management that the contemporary manager faces in a rapidly changing environment. Focus is on leadership styles and motivational techniques conducive to high performance in various organizational settings with a very diverse workforce. Topics include issues in the design of organizations, the corporate/organizational culture, the design and enrichment of jobs, and communication within organizations. Students may receive credit for only one of the following courses: M GMT 300, M GST 310, or TEM N 310.

## M GMT 301

## Accounting for M anagers (3)

(Formerly listed as M GST 301. M ay not be applied toward an emphasis or specialization in accounting.) A survey of principles of accounting relevant in making managerial decisions on the basis of accounting information. Topics include internal controls, financial planning and reporting, analysis of financial statements, and elements of managerial cost accounting and budgeting. Students may receive credit for only one of the following courses: ACCT 221, BM GT 221, M GM T 301, or M GST 301.

## M GMT 305

## The Global Business Environment (3)

(Fulfills the international perspective requirement.) Prerequisites: ECON 201 and 203. An examination of current business and economic issues that have international consequences. O verall concern is to clarify how the global economic, political, and cultural environment affects domestic business and public policy decisions. Discussion covers the growth of international marketing and competition, and management of the multinational corporation. Students may receive credit for only one of the following courses: BM GT 392, M GM T 305, or TM GT 390.

## M GMT 316

## Business Analysis M ethods (3)

Course applications require access to an IBM -compatible computer (operating with at least DOS 5.0, 640K RAM , a 10M hard disk drive, and a floppy disk drive). Prerequisite: M ATH 107 or equivalent. An examination of the sources and uses of information in an organization. Topics include methods of research used in business, selected statistical procedures, selected models used in forecasting, and quantitative analyses often used in making business decisions. C harting, graphing, presentation, and evaluation of reports are introduced. Statistical software (SPSS/PC + Studentware Plus) is used to perform statistical analyses on data. Students may receive credit for only one of the following courses: BEH S 202, BEHS 302, BM GT 230, ECON 321, GNST 201, M GMT 316, PSYC 200, SOCY 201, or STAT 400.

## M GM T 320

## Organizational Communication (3)

Prerequisite: M GM T 300. A study of the structure of communication in organizations. Problems, issues, and techniques of organizational communication are analyzed through case histories, exercises, and projects. The examination of theory and examples is intended to improve managerial effectiveness in communication and negotiation. Students may receive credit for only one of the following courses: BM GT 398N, MGMT 320, or TEM N 315.

M GMT 330

## Entrepreneurship and New Venture Planning (3)

Recommended: Familiarity with computers and business software. An overview of entrepreneurship and planning new business ventures for prospective entrepreneurs and managers. Topics include developing entrepreneurial ideas and innovations; strategic planning; marketing research, analysis, and planning; advertising, promotion, and sales; financial planning and financing; operations and services planning; human resources planning and management; analysis of risk; information management strategy and the advent of the W orld W ide W eb; legal aspects of new venture formation; and global venturing. Entrepreneurial theory, profiles and roles of entrepreneurs, business life cycles, entrepreneurial behavior, use of computer software to aid in planning, and entrepreneurial management and technology issues are explored. D iscussion and group activities focus on development of a business plan, the factors that should be considered, and the entrepreneur's role in developing and operating a new business. Students may receive credit only once under this course number and for only one of the following courses: M GMT 330 or SBUS 200.

## M GMT 334 <br> M anaging Early-Stage Ventures (3)

Prerequisite: Familiarity with new venture planning; BM GT 461 or M GM T 330 recommended. An exploration of the start-up and development of business ventures using an integrated approach to entrepreneurship, growth, and management. Topics include opportunities at different stages, legal structure, production of goods and services, marketing strategies, access to capital and capital formation, policy formation, and development of a management philosophy. H ow entrepreneurs make decisions- on growth of the venture, organizational structure, hiring of key employees, information systems, software and hardware use, and building of corporate culture-is also examined. Problems and pitfalls to avoid, implementation and periodic review of the business plan, global issues, cultural diversity, and the use of new technologies are considered.

## M GMT 336

## M anaging Strategic Venture G rowth and Industry (3)

Prerequisite: Familiarity with the business functions and factors involved with planning and managing a new venture; BM GT 461 or M GM T 330 recommended. A study of business ventures during the growth and maturity phases of development using an integrated approach to entrepreneurial management. Growth problems, major issues, and management strategies for businesses in the later stages of development are explored. Topics include budgeting and planning for continued growth; developing new products, features, and product enhancements; and identifying new sources of capital and expanding into other domestic and global markets. Consideration is given to how to implement cost controls, reorganize to rekindle entrepreneurial intensity, encourage innovation, and make staffing changes to achieve growth. Cultural diversity and the use of new technologies are also examined.

## M GMT 337

## Building the Entrepreneurial Team (3)

(Suggested as a follow-up to M GM T 330, M GM T 334, or M G M T 336.) Prerequisite: Familiarity with business functions and factors involved with planning, organizing, and managing a new venture; M GM T 330, M GM T 334, or M GMT 336 recommended. An exploration of growing ventures that focuses on the development of the business and key personnel and includes entrepreneurial human resource and support issues, ethics, and accountability. The appropriateness of the form of the venture- partnership, joint venture, strategic alliance, or license- is examined. Topics include ways of controlling and minimizing conflicts in the team; recruiting, motivating, and retaining team members; ensuring the responsibility and accountability of team members; and managing the team. Functional responsibilities and relationships are also discussed. A nalysis covers issues related to the organization's structure, protection of proprietary information, intellectual property assignment, location and performance of work, the evolving responsibility of the entrepreneur, negotiation with employees, and the multicultural employee base.

M GMT 339

## Government and Business Contracting (3)

(Formerly M GM T 220. D esigned for both entrepreneurs evaluating contracting and grant opportunities for the first time and people working in medium to large firms.) An investigation of the opportunities available for new business development and government and business contracting, as well as the problems involved. Topics include various methods governments and businesses use in determining requirements, choosing the procurement method, evaluating contractors and grant proposals, setting terms and conditions for contracts, awarding contracts, and administering contracts. Both theory and practice are examined with respect to procurement, purchasing procedures, types of contracts, cost and price analysis, and methods of writing proposals, obtaining helpful information, and establishing and maintaining internal controls. Students may receive credit for only one of the following courses: M GMT 220 or M GM T 339.

M GMT 398

## Special Topics in M anagement (1-3)

Intensive inquiry into special topics in management that reflect the changing needs and interests of students and faculty. M ay be repeated to a maximum of 6 credits when topics differ.

## M G M T 410

## M arketing for M anagers (3)

Prerequisite: ECON 203. An analysis of marketing management and how that function is related to other areas, such as production, accounting, finance, and personnel management. Focus is on the concept of team management as a means of minimizing potential conflicts between functional areas and optimizing performance of the whole system. The development of marketing strategy is reviewed and applied to practical examples. Ethical and global concerns are integrated with each topic of study.

## M GMT 425

## Total Quality Management (3)

Course applications require access to an IBM -compatible computer (operating with at least D OS 5.0, 640K RAM , a 10M hard disk drive, and a floppy disk drive). Prerequisite: M GMT 316. A survey of methods used to apply principles of total quality management (TQM) in various organizational settings to improve quality and productivity. Topics include evolution of TQM theory; TQ M models, tools, and techniques; development of TQM teams; production of graphs and charts; strategies for meeting customer expectations; benchmarking; and comparison of TQM applications. Spreadsheet software is used to develop statistical process control charts and graphs.

## M GMT 436

## Business Opportunities for the Entrepreneur of Tomorrow (3)

Prerequisite: Familiarity with the business functions and factors involved with planning and launching a new venture; M GM T 330 and 434 recommended. A capstone study of entrepreneurial strategies and management in various competitive situations and stages of development. Topics include the development of partnerships, joint ventures, strategic alliances, and licensing; issues regarding management, financing, marketing, production, administration, human resources, and growth of the business are analyzed. Examination covers strategies and tactics using environmental scanning, analysis, and planning and decision making by entrepreneurs (including reviewing relevant options and opportunities, forecasting demand and sales, estimating costs, and developing pro forma financial statements). Potential business opportunities are assessed using exercises, case studies, and research related to new technologies, innovation, competition, economic and social change, governmental regulation and laws, major product and service features, organizational and human resource issues, information management, global issues, financial management, marketing, operations, and customer service.

## M GM T 440

## Cost Proposal Methods (3)

Prerequisites: M GM T 301 or M GM T 305, and M GM T 340. A presentation of various methods supervisors and managers can use to improve their skills in estimating costs and developing cost proposals. Estimating procedures are applied to a range of realistic problems. Assignments include the devel opment of cost proposals in at least one area of interest. Students may receive credit for only one of the following courses: M GM T 440 or TEM N 400.

## M GM T 445

## Global Technology and Innovation Strategy (3)

(Fulfills the international perspective requirement.) Prerequisites: M GM T 300 and 305 , or equivalent. An evaluation of the relationship of technology transfer to innovation and economic growth. Factors that affect the flow of technology in organizations and among firms, industries, and nations are taken into consideration. Barriers to technology transfer are examined. The dynamics of the environments in which technology transfer takes place are anal yzed as a basis for evaluating the ease of information transfer between companies or countries. Students may receive credit only once under this course number and for only one of the following courses: M GM T 445 or TEM N 430.

M GMT 498

## Special Topics in M anagement (1-3)

An advanced senior-level intensive inquiry into special topics in management that reflect the changing needs and interests of students and faculty. $M$ ay be repeated to a maximum of 6 credits when topics differ.

## MANAGEMENT STUDIES

A specialization in management studies is based on the premise that many work environments require a knowledge of management principles that may best be gained from more than one discipline.

## Courses in management studies (designated M GST) may be applied toward

- a primary or a secondary specialization in management studies;
- a secondary specialization in most management-related curricula;
- supporting credit for a primary specialization in business and management, health services management, hotel and restaurant management, management, or technology and management; and
- electives.

A description of the curriculum begins on $p$. 43. Descriptions of other management-related curricula may be found on the following pages: accounting ( p .16 ), business and management (p. 18), environmental management (p. 31), fire science ( $p .32$ ), health services management ( $p .34$ ), hotel and restaurant management (p.37), management (p. 41), and technology and management (p. 48).

## M GST 120

## Fundamentals of the Accounting Process (3)

(N ot open to students who have completed ACCT or BM GT 220 or an equivalent course in financial accounting. For students with little or no background in accounting.) An introduction to the analysis and recording of business transactions within the accounting process. Focus is on the accounting cycle, from journal and ledger entries to the preparation and analysis of financial statements for both service and retail concerns. Special journals and cash and payroll accounting are covered.

## M GST 140

## Personal Financial Management (3)

( $N$ ot limited to students specializing in a business discipline.) Practical exposition of methods of managing personal finances. Theory is blended with financial applications, providing an overview of the financial structure of the nation while encouraging development of skills in personal financial manage ment. The former covers such topics as savings and investment alternatives, financing and sources of credit, the role of insurance in protecting income and assets, and federal incometax requirements. The latter includes skills such as balancing a checkbook, budgeting income and expenditures, and planning for financial security and retirement.

## M GST 160

## Principles of Effective Management (3)

A survey of and introduction to the skills required to supervise workers effectively, such as knowing how to plan, organize, and control the work load and understanding worker behavior. Topics include management by objectives, situational leadership, task delegation, time management, motivational strategies, and the recruitment and evaluation of workers. Students may receive credit only once under this course number and may apply only two of the following courses to any specialization in management studies or business and management: BM GT 364, BM GT 464, M GST 160 , and M GST 310.

## M GST 161

## Managerial Communication Skills (3)

(D oes not fulfill the general education requirement in communications.) Recommended: M GST 160. A presentation of skills of clear communication, focusing on the process. Presentation of the communication model is followed by practice in the skills of receiving information (by reading, listening, and observing nonverbal cues) and conveying information in conversation and writing. Job-related examples are used in practice. Students may receive credit for only one of the following courses: COM M 390, H U M N 390, or M GST 161.

## M GST 162

## Personnel Counseling (3)

(For supervisors who have to counsel as part of the job.) An introduction to the counseling process. Roleplaying exercises are used to develop proficiency in the skills of active listening and observing. Effective techniques introduced include focusing on the problem, understanding empathetically, giving reinforcement, and guiding others in making decisions. Examples of counseling situations (such as performance appraisals, male/female issues, personal crises that affect work performance, and other performance problems) are drawn from the work environment.

## M GST 310

## M anagerial Leadership (3)

An examination of the concepts and principles of effective managerial leadership. Practice in techniques of effective leadership-motivation, delegation, conflict resolution, and employee performance evaluation - are emphasized. Students may receive credit for only one of the following courses:
M GMT 300, M GST 310, or TEM N 318.

## M GST 320

## Governmental Accounting (3)

Prerequisites: BM GT 110 and ACCT or BM GT 221. A study of accounting and reporting concepts, standards, and procedures that apply to state and federal organizations. Financial management factors are examined, along with problems peculiar to the not-for-profit sector.

M GST 398

## Special Topics in M anagement Studies (1-3)

Investigation of special topics focusing on relevant problems and issues of general interest. $M$ ay be repeated when topics differ.

## MATHEMATICS

## C ourses in mathematics (designated M ATH ) may be applied toward

- the general education requirement in mathematics (with the exception of MATH 009 and 102);
- a primary or a secondary specialization in mathematics;
- supporting credit for a primary or a secondary specialization in computer and information science, computer science, information systems management, and other areas as approved by a counselor; and
- electives.

Students who are planning a specialization in the fields of business and management, computer and information science, or the biological or social sciences should consider courses from sequencel. Students who are planning a specialization in computer science, mathematics, or the physical and engineering sciences should consider courses from sequence II. Students in specializations not mentioned above should choose a mathematics course consistent with their specialization requirements.

| Sequence I | Sequence II |
| :--- | :--- |
| M ATH 102 | M ATH 102 |
| M ATH 107 | M ATH 115* |
| M ATH 220 | M ATH 140 |
| M ATH 221 | M ATH 141 |
| Approved course | M ATH 240 |
| in statistics | M ATH 241 |
| * or M ATH 107-108 |  |

Students are strongly urged to complete lower-level mathe matics courses early in their college career.

Placement tests are required for enrollment in M ATH 102, $105,107,108,115,140$, and 220 . Students may either consult the U ndergraduate Schedule of Classes for times and locations of tests or contact the Testing Center by phone at 301-$985-7645$ or by e-mail at dess@www.umuc.edu.

A description of the curriculum begins on p. 43.
MATH 009

## Introductory Algebra (0)

A comprehensive review of fractions, percentages, operations with signed numbers, and geometric formulas. Basic algebraic topics covered include exponents, polynomials, and linear equations. Although this course carries no credit toward any degree in the University System of $M$ aryland, its cost is equivalent to that of a 3-credit course.

## MATH 102

## College M ath and Problem-Solving Techniques (3)

(Fulfills the prerequisite for M ATH 107 and STAT 100.) Prerequisites: 2 years of college preparatory mathematics and satisfactory performance on a placement test. A study of problem-solving techniques for math and statistics. Numbers and algebraic properties, graphing skills, and applications drawn from a variety of areas (such as statistics, computing, and discrete mathematics) are emphasized. Topics include polynomials; factoring; exponentials and their notation; linear, quadratic, and other equations; inequalities; and logarithmic functions. Students may receive credit for only one of the following courses: M ATH 101, M ATH 102, M ATH 102M, M ATH 199A, or M ATH 199M.

MATH 102M

## College M ath and Problem-Solving Techniques (4)

(For students whose academic progress is being blocked by anxiety about their mathematics coursework. Fulfills the prerequisite for M ATH 107 and STAT 100.) Prerequisites: 2 years of college-preparatory mathematics and satisfactory performance on a placement test. A study of problem-solving techniques for math and statistics. Numbers and algebraic properties, graphing skills, and applications drawn from a variety of areas (such as statistics, computing, and discrete mathematics) are emphasized. Topics include polynomials; factoring; exponentials and their notation; linear, quadratic, and other equations; inequalities; and logarithmic functions. Students may receive credit for only one of the following courses; EDCP 108M, M ATH 101, M ATH 102, M ATH 102M, M ATH 199A, or M ATH 199M.

MATH 105

## M athematics: C ontemporary Topics and Applications (3)

Prerequisites: 2 years of college-preparatory mathematics and satisfactory performance on a placement test. A survey of contemporary topics in mathematics, covering applications and projects. Topics include problem solving, sequences and series, financial management, geometry, probability, and statistics.

## MATH 107

## Selected Topics in C ollege Algebra (3)

(The first course in the two-course series M ATH 107-108. An alternative to MATH 115 PreCalculus.) Prerequisites: $21 / 2$ years of college preparatory mathematics and satisfactory performance on a placement test. An introduction to equations, inequalities, and absolute values and a study of functions and their properties, including the development of graphing skills with polynomial, rational, exponential, and logarithmic functions. Applications are also covered. Students may receive credit for only one of the following courses: MATH 107 or MATH 115.

## MATH 108

## Trigonometry and Analytical Geometry (3)

(The second course in the two-course series M ATH 107-108. An alternative to M ATH 115 Pre-Calculus.) Prerequisites: M ATH 107 or equivalent, and satisfactory performance on a placement test. An introduction to trigonometric functions, identities, and equations and their applications. Analytical geometry and conic sections are covered. Additional topics may include matrices, determinants, sequences, and series. Students may receive credit for only one of the following courses: M ATH 108 or M ATH 115.

## MATH 111

## Introduction to Probability (3)

(N ot open to students who have completed STAT 100 or any course with a prerequisite of M ATH 141. N ot for students specializing in the physical sciences.) Prerequisite: $31 / 2$ years of college-preparatory mathematics, M ATH 110, or M ATH 115. An introduction to aspects of probability. Topics include logic, Boolean algebra, counting, random variables, and expectation applications of the normal probability distributions. Students may receive credit for only one of the following courses: M ATH 111 or STAT 100.

## MATH 115

## Pre-Calculus (3)

(Preparation for M ATH 140 or M ATH 220. N ot open to students who have completed M ATH 140 or any course for which M ATH 140 is a prerequisite.) Prerequisites: $21 / 2$ years of college preparatory mathematics and satisfactory performance on a placement test. Explication of elementary functions and graphs. Topics include polynomials, rational functions, exponential and logarithmic functions, and trigonometric functions. Algebraic techniques preparatory for calculus are presented. Students may receive credit for only one of the following courses: M ATH 107-108 or M ATH 115.

## MATH 140

## Calculus I (4)

(Especially recommended for students specializing in mathematics.) Prerequisites: $31 / 2$ years of college preparatory mathematics (including trigonometry), M ATH 107-108 or M ATH 115, and satisfactory performance on a placement test. An introduction to calculus. M ajor topics include functions, the sketching of graphs of functions, limits, continuity, derivatives and applications of the derivative, definite and indefinite integrals, and calculation of area. Students may receive credit for only one of the following courses: MATH 140 or MATH 220.

## MATH 141

## Calculus II (4)

(A continuation of M ATH 140.) Prerequisite: M ATH 140. A study of integration and functions, with application, and coverage of other topics. Focus is on techniques of integration, improper integrals, and applications of integration (such as volumes, work, arc length, and moments); inverse, exponential, and logarithmic functions; and sequences and series. Students may receive credit for only one of the following courses: M ATH 141 or M ATH 221.

## MATH 220

## Elementary Calculus I (3)

(For students not specializing in mathematics.) Prerequisites: M ATH 107 or M ATH 115, and satisfactory performance on a placement test. A presentation of the basic ideas of differential and integral calculus. Emphasis is on elementary techniques of differentiation, as well as applications. Students may receive credit for only one of the following courses:
MATH 140 or MATH 220.

## MATH 221

## Elementary Calculus II (3)

(For students not specializing in mathematics or the physical sciences.) Prerequisite: M ATH 140 or M ATH 220, or equivalent. A study of differential and integral calculus. Emphasis is on elementary techniques of integration and various applications. Students may receive credit for only one of the following courses: M ATH 141 or MATH 221.

## MATH 240

## Introduction to Linear Algebra (4)

Prerequisite: M ATH 141 or equivalent. An explanation of the basic concepts of linear algebra. Topics include vector spaces, applications to line and plane geometry, linear equations, and matrices, as well as linear transformations, changes of basis, diagonalization, similar matrices, Jordan canonical forms, eigenvalues, determinants, and quadratic forms. Students may receive credit for only one of the following courses: MATH 240, MATH 400, or MATH 461.

## MATH 241

## Calculus III (4)

Prerequisites: M ATH 141 or equivalent. An introduction to multivariable calculus. Exposition covers vectors and vectorvalued functions; partial derivatives and applications of partial derivatives (such as tangent planes and Lagrangian multipliers); multiple integrals; volume; surface area; and the classical theorems of Green, Stokes, and Gauss.

## MATH 246

## D ifferential Equations (3)

Prerequisite: M ATH 141 or equivalent. An introduction to the basic methods of solving differential equations. Separable, exact, and especially linear differential equations are addressed. The main techniques considered are undetermined coefficients, series solutions, Laplace transforms, and numerical methods. Students may receive credit only once under this course number.

## MATH 301

## Concepts of Real Analysis I (3)

Prerequisites: M ATH 240 and 241 or equivalent. An approach to real analysis. Subjects covered include sequences and series of numbers, continuity and differentiability of real-valued functions of one variable, the Riemann integral, sequences of functions, and power series. Also discussed are the functions of several variables, including partial derivatives, multiple integrals, line and surface integrals, and the implicit-function theorem. Students may receive credit for only one of the following courses: M ATH 301 or M ATH 410.

## M ATH 302

## C oncepts of Real Analysis II (3)

(The second semester of a yearlong course; a continuation of M ATH 301.) Prerequisite: M ATH 301. Further study of real analysis. Students may receive credit for only one of the following courses: M ATH 302 or M ATH 411.

## MATH 370

## Actuarial Science (3)

Prerequisite: M ATH 241 or equivalent. A study of the computation of rates based on statistical probabilities. Focus is on measurement of interest, force of interest, term-certain annuities, and mathematical techniques in analyzing life insurance settlement options. Topics may also include materials from the mathematics of compound interest in the associateship examinations of various actuarial organizations.

## M ATH 381

## O perations Research (3)

Prerequisite: M ATH 240 or equivalent. An exploration of linear programming models and applications, simplex algorithm, sensitivity analysis, integer programming, and network flow models.

MATH 390
M athematics of C ommunication (3)
Prerequisite: M ATH 240 or equivalent. An overview of the mathematics of electronic communication. Topics include signaling and modulation; filtering and signal noise ratio; encoding for error correction/detection and compression; Fourier analysis; congestion in networks, queuing, routing, and flow control; and cryptography.

MATH 401

## Applications of Linear Algebra (3)

Prerequisite: M ATH 240 or M ATH 400. An exploration of the various applications of linear algebra. Topics include linear programming, theory of finite games, and matrix methods as applied to finite $M$ arkov chains. O ther topics include random walk, incidence matrices, graphs and directed graphs, networks, and transportation problems.

## MATH 402

## Algebraic Structures (3)

Prerequisite: M ATH 240 or equivalent. An overview of groups, rings, integral domains, and fields; detailed study of several groups; and exploration of properties of integers and polynomials. Topics may include introduction to computer algebra and Boolean algebra.

MATH 403

## Introduction to Abstract Algebra (3)

Prerequisites: M ATH 240 and 241, or equivalent. A discussion of integers, groups, rings, integral domains, and fields. Students may receive credit for only one of the following courses: M ATH 402 or M ATH 403.

## MATH 410

## Advanced C alculus I (3)

( N ot open to students who have completed M ATH 250. The first semester of a yearlong course.) Prerequisites: M AT H 240 and 241. An approach to advanced calculus. Subjects covered include sequences and series of numbers, continuity and differentiability of real-valued functions of one variable, the Riemann integral, sequences of functions, and power series. Also discussed are the functions of several variables, including partial derivatives, multiple integrals, line and surface integrals, and the implicit-function theorem.

## MATH 432

## Point Set Topology (3)

Prerequisite: M ATH 241 or equivalent. A survey of connectedness, compactness, transformations, and homomorphisms. The concepts are applied to various spaces. Particular attention is paid to the Euclidean plane. Students may receive credit only once under this course number.

## MATH 436

## M odern Geometry (3)

Prerequisites: M ATH 240 and 241, or equivalent. A survey of the basic concepts of modern geometry. Topics include curves in the plane and Euclidean space; surfaces in Euclidean space and orientability of surfaces; Gaussian and mean curvatures; surfaces of revolution and ruled and minimal surfaces; special curves on surfaces; Theorema Egregium; and the intrinsic geometry of surfaces.

## MATH 450

## Logic for Computer Science (3)

(Also listed as CM SC 450. Accessible to advanced undergraduates specializing in computer science.) Prerequisites: CM SC 150 and M ATH 241, or equivalent. Elementary development of propositional logic (including the resolution method) and first-order logic (including H ebrand's unsatisfiability theorem). Discussion covers the concepts of truth and interpretation; validity, provability, and soundness; completeness and incompleteness; and decidability and semidecidability. Students may receive credit for only one of the following courses: CM SC 450, M ATH 444, M ATH 445 , or M ATH 450.

MATH 461

## Linear Algebra for Scientists and Engineers (3)

Prerequisites: M ATH 141 and one course in mathematics or statistics for which M ATH 141 is a prerequisite. A survey of the basic concepts of linear algebra, similar to M ATH 240 but offering more extensive coverage of the topics needed in applied linear algebra. Topics include change of basis, complex eigenvalues, diagonalization, and the Jordan canonical form. Students may receive credit for only one of the following courses: MATH 240, MATH 400, or MATH 461.

## MATH 463

## C omplex Variables (3)

Prerequisite: M ATH 241 or equivalent. A survey of analytic functions, mapping properties of the elementary functions, the algebra of complex numbers, and the C auchy integral formula. Further topics include conformal mapping as well as theory of residues and its application to evaluation of integrals. Students may receive credit only once under this course number.

## MATH 466

## Numerical Analysis (3)

Prerequisites: M ATH 240 and 241, or equivalent. A study of various methods of numerical analysis. Topics include solutions of equations in one variable, interpolation and polynomial approximation, and numerical integration. Also discussed are direct methods for solving linear systems and applications to finance and actuarial science.

## MATH 475

## Combinatorics and Graph Theory (3)

Prerequisites: M ATH 240 and 241 , or equivalent. An exploration of general enumeration methods, difference equations, and generating functions. Focus is on elements of graph theory, matrix representations of graphs, and applications of graph theory to transport networks. M atching theory and graphical algorithms are also considered. Students may receive credit for only one of the following courses: CM SC 475 or MATH 475.

## MICROBIOLOGY

## Courses in microbiology (designated MICB) may be applied toward

- the general education requirement in the biological and physical sciences;
- a primary or a secondary specialization in microbiology;
- electives.

UM UC offers only a limited number of courses each semester in this discipline. To complete a primary or a secondary specialization, students may need to take courses at other institutions in the University System of M aryland or to extend the time spent in fulfilling degree requirements. Students are advised to consult a counselor before selecting this discipline as a primary or secondary specialization.

A description of the curriculum begins on p. 44.
MICB 200

## General Microbiology (4)

(Fulfills the laboratory science requirement. Lab fee required.) Prerequisite: BIOL 105 or BSCI 105. An investigation of fundamental concepts in morphology, physiology, genetics, immunology, ecology, and pathogenic microbiology. Applications of microbiology to medicine, the food industry, and biotechnology are considered. Students may receive credit for only one of the following courses: BSCI 223 or M ICB 200.

## MICB 310

## Applied M icrobiology (4)

(Fulfills the laboratory science requirement.) Prerequisite: M ICB 200. A discussion of the ways microorganisms and microbiological principles are involved in industrial processes. The control of microorganisms, industrial fermentations, antibiotics, and sterilization are addressed.

## MICB 322 <br> Microbiology and the Public (3)

(For students not specializing in a science.) An overview of the sociopolitical effects of microbial phenomena. The roles of epidemic disease, water pollution, immunization requirements, and solid-waste disposal in the current social and political problems of the United States are assessed.

M ICB 360

## Medical Virology (3)

(For students interested in health-related careers.) Prerequisite: M ICB 200. A summary of viral structure and multiplication, a review of the biology of the immune response, and systematic coverage of the pathogenesis and pathology of major viral diseases. Focus is on the host's response to viral infection.

## MICB 420

## Epidemiology and Public Health (2)

Prerequisite: M ICB 200. A history of epidemiology and its characteristic features. The role of vital statistics is examined, and the critical responsibilities of public health are highlighted.

## M ICB 440

## Pathogenic M icrobiology (4)

(Fulfills the laboratory science requirement. Lab fee required.) Prerequisite: M ICB 200. An investigation of the role that bacteria and fungi play in human disease. Emphasis is on learning to differentiate and culture microorganisms. Types of disease and their modes of transmission are reviewed. Prophylactic, therapeutic, and epidemiological aspects of microbial diseases are investigated.

MICB 460

## General Virology (3)

Prerequisite: BIOL 222 or equivalent. A broad investigation of viruses. Topics of discussion include the physical and chemical nature of viruses, methods of cultivation and assay, modes of replication, characteristics of the major viral groups, and the types of viral diseases. Emphasis is on viral genetics and the oncogenic viruses.

MICB 470

## Microbial Physiology (3)

Prerequisite: M ICB 200. Prerequisite or corequisite: BCH M 462. An investigation of the processes of growth in microbial cells and populations. Processes studied include the metabolism of fermentation, the physiology of anaerobiosis, and the conservation and transformation of energy in bacterial membranes. The efficiency with which energy is used for growth is assessed; the structure and transport of membranes are examined. Bacterial chemotaxis and the regulation of replication in bacterial chromosomes are examined; the connections between RN A and protein synthesis are traced; the control of metabolic pathways is considered.

MICB 480

## Microbial Ecology (3)

Prerequisites: CHEM 243 or CHEM 245, and M ICB 200. A study of the interaction of microorganisms with the environment, with other microorganisms, and with higher organisms. The roles of microorganisms in the biosphere are assessed. The relation of microorganisms to current environmental problems is examined.

MUSIC

## C ourses in music (designated M U SC) may be applied toward

- the general education requirement in the arts and humanities; and
- electives.

MUSC 130

## Survey of Music Literature (3)

SeeHUMN 130.
MUSC 140
Music Fundamentals I (3)
SeeHUMN 140.
MUSC 210
The Impact of Music on Life (3)
SeeHUMN 211.
MUSC 436
Jazz: Then and Now (3)
SeeH UMN 436.
M USC 448B
Special Topics in Music: The Musical Symphony (1)
SeeHUMN 448.

## NUTRITION

Courses in nutrition (designated NUTR) may be applied toward

- electives.

N UTR 100 may be applied toward the general education requirement in the biological and physical sciences.

NUTR 100

## Elements of Nutrition (3)

A study of the fundamentals of human nutrition. The changing nutritional needs of individuals and families are explored. Students may receive credit for only one of the following courses: NUTR 100 or NUTR 200.

## PARALEGAL STUDIES

C ourses in paralegal studies (designated PLGL) may be applied toward

- a document in paralegal studies, or
- bachelor's degree coursework (as part of a primary or a secondary specialization in paralegal studies or as electives).

With the approval of a counselor, certain courses may be applied toward supporting credit for a primary or a secondary specialization in business and management, criminology/ criminal justice, government and politics, management, or management studies.

PLGL 401 may be applied toward the general education requirement in upper-level writing; PLGL 360 and 363A may be applied toward the general education requirement in computing.

A description of the curriculum begins on p. 45.

## PLGL 101

## Introduction to Law for the Paralegal (3)

(Prerequisite to all other paralegal courses. No prior legal knowledge needed.) A survey of the U.S. legal system and an overview of the role of the paralegal in the legal environment. Topics include the organization and powers of federal and state lawmaking institutions, as well as court procedures. Skills taught are those necessary for paralegal work, such as the analysis of statutory provisions and judicial opinions, along with the identification of legal issues.

## PLGL 200

## Techniques of Legal Research (3)

Prerequisite: PLGL 101. An introduction to the methods paralegals use to analyze problems and locate relevant, mandatory, and current rules and interpretations. Presentation covers the analysis, publication, and citation of judicial opinions, statutory provisions, administrative law, and legislative history. The features and use of secondary sources, digests, and other indexes are explained. The use of citators to update and identify related case law is explained, and computerassisted research systems are introduced.

## PLGL 201

## Legal Writing (3)

Prerequisite: PLGL 200. An introduction to the principles of writing clearly and effectively, with techniques for doing so in the legal environment. Emphasis is on types of documents that paralegals may be called upon to draft, including intake memos, legal memos, and client letters.

## PLGL 204

## Legal Ethics/Law Office Systems (3)

A survey of basic principles relating to the practice of law and the responsibilities of paralegals. Rules and guidelines governing the ethical conduct of lawyers and nonlawyers are introduced. Also covered are law office management principles relevant to ethical requirements.

## PLGL 223 <br> Investigative Techniques (3)

Prerequisite: PLGL 201. An exploration of the techniques for gathering factual information relevant to legal situations. Topics include interviewing clients and others with relevant information and recording the results of the interviews. Use of the wide variety of print and online resources that provide information on individuals, businesses, institutions, and organizations is also covered. Students may receive credit for only one of the following courses: CJUS 220 or PLGL 223.

## PLGL 312

## Torts (3)

Prerequisite: PLGL 201. A study of the causes of action, defenses, and remedies in the major categories of tort law. Tort-litigation procedures and writings for which a paralegal may be responsible are introduced. Topics include the various intentional torts, negligence, strict liability, damages, workers' compensation, and civil procedures. Assignments include legal research and written analysis.

PLGL 315

## D omestic Relations (3)

Prerequisite: PLGL 201. A study of the legal aspects of divorce and separation. Emphasis is on $M$ aryland law and on the processes, procedures, and writings a paralegal may handle. Topics include grounds for, defenses in, and jurisdictional issues of divorce, separation, and annulment; child custody and visitation; and alimony, child support, disposition of property, and tax consequences. Relevant aspects of civil procedures, enforcement, and the modification of orders and agreements are covered. Assignments include legal research and written analysis. Students may receive credit for only one of the following courses: FM CD 487 or PLGL 315.

## PLGL 316

## Estates and Probate (3)

Prerequisite: PLGL 201. A study of the legal concepts entailed in drafting and preparing simple wills and administering estates in $M$ aryland, as well as the processes, procedures, and writings for which a paralegal may be responsible. Topics include preliminary and practical considerations of administering an estate; the appraisal of estate assets and probate inventory; inheritance taxes; claims against the estate; management of debts, accounting, and distribution considerations; the drafting and execution of wills; and guardianships. Assignments include legal research and written analysis. Students may receive credit for only one of the following courses: PLGL 216 or PLGL 316.

## PLGL 320

## Criminal Law and Procedures (3)

Prerequisite: PLGL 201. A study of the substantive and procedural aspects of the criminal-justice system. Aspects stressed are those that may affect the work of a paralegal. Topics include crimes and defenses, potential charges, and penalties. Court procedures are reviewed and explained. Assignments include legal research and written analysis. Students may receive credit for only one of the following courses: CJUS 234 or PLGL 320.

## PLGL 322

## Evidence (3)

Prerequisite: PLGL 201. A study of laws that govern the admissibility of evidence for establishing or controverting facts in trials and administrative proceedings, and a study of the role of the paralegal in gathering evidence and helping attorneys prepare for trial. Assignments include legal research and written analysis. Students may receive credit for only one of the following courses: PLGL 222 or PLGL 322.

PLGL 325

## Litigation (3)

Prerequisite: PLGL 201. An examination of the process of civil litigation and responsibilities commonly assigned to paralegals. Stages surveyed include investigation and interviewing, preparation of pleadings and motions, discovery, the conduct of the trial, and post-trial activity. Assignments include legal research and written analysis.

## PLGL 327

## Alternative D ispute Resolution (3)

(Formerly PLGL 398G.) An overview of the various processes and techniques to settle disputes without court adjudication. Topics include negotiation, mediation, and arbitration, and the role of the paralegal in these areas. Students may receive credit for only one of the following courses: PLGL 327 or PLGL 398G.

## PLGL 330

## Administrative Law (3)

Prerequisite: PLGL 201. An overview of the functions and procedures of federal and state administrative agencies as defined by statutes, the Administrative Procedures Act, and case law, as well as preparation of writings pertinent to administrative law practice. Topics include rulemaking, adjudication and due process, judicial review, the use and control of agency discretion, and disclosure of information. Assignments include legal research and written analysis.

## PLGL 335

## Elder Law (3)

(Formerly PLGL 398E.) Prerequisite: PLGL 201. An overview of legal issues that are increasingly relevant as the older population increases. Topics include health care, public entitlements, and legal and financial decision making. Emphasis is on the role of the paralegal in those areas. Assignments include legal research and written analysis. Students may receive credit for only one of the following courses: PLGL 335 or PLGL 398E.

PLGL 340

## C ontract Law (3)

Prerequisite: PLGL 201. A comprehensive study of the major areas of contract law that paralegals are most likely to encounter. Topics include the legal concepts of formation; modification, assignment, delegation, and status of possible third-party beneficiaries; interpretation and enforcement; discharge; breach and remedies for breach; the statute of frauds; and the parole evidence rule. Assignments include legal research and written analysis.

PLGL 343

## Real Estate Transactions (3)

Prerequisite: PLGL 201. A study of the essentials of real estate law. Emphasis is on settlement procedures in M aryland, with a study of the processes, procedures, and writings for which a paralegal may be responsible. Discussion covers real estate contracts, types and sources of mortgage financing, title work, and closing and settlement. O ther topics examined include various facets of landlord/tenant issues; easements and covenants; and condos, PUDs, and co-ops. Assignments include legal research and written analysis.

## PLGL 350

## Income Tax Law (3)

Prerequisite: PLGL 201. A presentation of the legal methods involved in preparing federal, state, and local income tax returns, for the prospective paralegal. The federal revenue system, tax accounting, types of income, and types of deductions are major topics. Assignments include legal research and written analysis.

## PLGL 360

## Computer Application in the Legal Environment (3)

An overview of uses of the computer in the legal environment for the prospective paralegal. The concepts and theory of computer operations are explained in the context of needs analysis for law firms. Applications such as text processing, database management, electronic spreadsheets, integrated software, and litigation support are emphasized. Students may receive credit for only one of the following courses: CAPP 343 or PLGL 360.

## PLGL 363A

## Computer-Assisted Litigation Support (3)

Prerequisite: PLGL 325. An exploration of use of the computer as an aid to litigation support and of the role of the paralegal. Discussion covers the integration of new with existing software, the process of designing a computer system to support litigation, the procedures of coding and abstracting, inputting and retrieving data, and controlling files and programs.

## PLGL 370

## Advanced Legal Analysis (3)

An advanced study of the legal analysis skills needed by the paral egal to successfully complete a variety of tasks in the legal environment. Skills covered include spotting and framing legal issues, identifying and applying relevant law to predict and to advocate the outcome of legal issues, and using legal rules and interpretations to develop informal and formal discovery plans.

## PLGL 398C

## O nline Legal Resources (1)

Prerequisite: PLGL 200. A hands-on introduction to various legal resources available via computer and techniques for accessing them. Focus is on searching for and retrieving information through the Internet, LEXIS, and Web sites.

## PLGL 398H

## Workers' Compensation Law (1)

A thorough study of the M aryland W orkers' C ompensation Act and the practice of workers' compensation law in M aryland. Practical aspects of the workers' compensation system (including jurisdiction, employer/employee relationships, injuries covered by the act, defenses, compensation benefits, vocational rehabilitation, and appeals) are covered.

## PLGL 398K

## Landlord/Tenant Law (1)

A nuts-and-bolts study of landlord/tenant issues. Focus is on the rights and obligations of landlords in rental properties and the rights of tenants and how to assert those rights. Topics include lease provisions, eviction processes, and how to defend against eviction.

## PLGL 398M

## Collections Law (1)

A practical study of one aspect of creditor and debtor rights in M aryland, the District of Columbia, and Virginia. O rganizational skills necessary for efficiently managing a large collections caseload are covered. Focus is on techniques for locating judgement debtors and their assets and proper methods for completing the court documents necessary for pursuing involuntary collection procedures such as garnishments. Voluntary collection methods are also discussed.

## PLGL 400

## Advanced Legal Research (3)

Prerequisites: PLGL 200 and 201. An exhaustive study of methods and techniques for planning and completing a complex legal research project. Features and uses of book-based as well as online sources for both primary and secondary legal authority are presented. Online sources of factual data are introduced; training in the proper procedures for abstracting and summarizing data is provided.

PLGL 401

## Advanced Legal Writing (3)

Prerequisite: PLGL 201. A thorough grounding in the principles and techniques of drafting sophisticated legal documents that paralegals may be called upon to prepare. Kinds of writings that are covered include complex office and advocacy memoranda as well as selected parts of statements of facts for appellate briefs and selected litigation documents and writing. Assignments include legal research.
PLGL 411

## C onsumer Protection Law (3)

Prerequisite: PLGL 340. A general overview of consumer protection law and the roles of federal, state, and local agencies, for the prospective paralegal. Specific concepts and topics include warranties, the regulation of consumer credit, restrictions on advertising, and credit reporting. Assignments include legal research and written analysis.

## PLGL 415 <br> Intellectual Property (3)

(Formerly PLGL 398D .) Prerequisite: PLGL 201. An overview of intellectual property. Topics include patents, trademarks, and copyright law. Emphasis is on the role of the paralegal in application, maintenance, research, and litigation processes. Assignments include legal research and written analysis. Students may receive credit for only one of the following courses: PLGL 398D or PLGL 415.

## PLGL 420

## Immigration Law (3)

(Formerly PLGL 398F.) An overview of the laws, agencies, and procedures involved in U.S. immigration law and the role of paralegals in immigration practice. Topics include sources and administration of immigration law and research and preparation of various immigration documents. Assignments include legal research and written analysis. Students may receive credit for only one of the following courses: PLGL 398F or PLGL 420.

## PLGL 431 <br> G overnment Information Practices (3)

Prerequisite: PLGL 330. An introduction to federal statutes and interpretive case law governing requirements, exemptions, and procedures related to the disclosure of information by the federal government, and an introduction to the processes, procedures, and writings for which a paralegal may be responsible. Significant laws considered are the Freedom of Information Act, the Privacy Act, the National Security Information Act, the Federal Advisory Committee Act, and the Government in the Sunshine Act. Assignments include legal research and written analysis. Students may receive credit for only one of the following courses: PLGL 331 or PLGL 431.

## PLGL 434

## Government C ontracts (3)

Prerequisite: PLGL 340. An overview of the rules and regulations that must be followed in preparing and executing government contracts, for the prospective paralegal. M ethods of acquisition, types of contracts and settlements, modifications, socioeconomic provisions, and disputes and remedies are covered. Assignments include legal research and written analysis.

## PLGL 442

## Corporate Law (3)

Prerequisite: PLGL 340. An overview of the legal aspects of establishing, organizing, developing, and operating a business enterprise, and the processes, procedures, and writings for which a paralegal may be responsible. Topics include sole proprietorship, the corporation, general and limited partnerships, and other forms of organization. Assignments include legal research and written analysis. Students may receive credit for only one of the following courses: PLGL 342 or PLGL 442.

## PLGL 450

## Bankruptcy Law (3)

Prerequisite: PLGL 201. A study of the bankruptcy code and the related rules of procedure, covering the role of the paralegal in assisting attorneys in bankruptcy practice. Techniques detailed include how to identify and gather relevant data, and how to draft and file appropriate documents. Assignments include legal research and written analysis.

## PLGL 486

## Paralegal Internship Through Cooperative Education (3 or 6)

(Also listed as COOP 486S.) Prerequisites: Formal admission to Co-op program (students should call 301-985-7780 for information); PLGL 200, 201, 204 or equivalent; 9 semester hours of upper-level credit in paral egal studies; 15 additional semester hours completed; and a minimum GPA of 3.0. The opportunity to gain experience in public interest or legal aid settings under supervision of an attorney. Positions are unpaid and are at preapproved sites arranged by the student. Academic assignments are also required. Students seeking a first bachelor's degree may earn a maximum of 15 semester hours of credit in Co-op; students seeking a second bachelor's degree may earn a maximum of 9 semester hours in Co-op.

## PHARMACOLOGY

## C ourses in pharmacology (designated PCOL) may be applied toward <br> - electives only.

C ourses in this discipline do not fulfill the general education requirement in the biological and physical sciences.

## PCOL 450A <br> Basic Pharmacology and Therapeutics I (3)

Prerequisite: Some background in a medical or biological science. A survey of the systemic effects of pharmacologic agents based on classification by group. General principles of the action of drugs are outlined, with consideration of drugs that act on the autonomic nervous system, the cardiovascular system, and the kidneys. The discussion of each group of drugs attempts to include its historical background as well as cover the physiological and the pharmacological bases of its action. Pharmacological effects, clinical indications and contraindications, recommended dosages, and toxicity are considered. For each system a review of relevant physiology is presented.

PCOL 450B

## Basic Pharmacology and Therapeutics II (3)

(PCOL 450A need not betaken before PCOL 450B.) Prerequisite: Some background in a medical or biological science. A survey of the systemic effects of pharmacologic agents, focusing on the classification of drug groups. Agents that act on the central nervous system, endocrine agents, antibacterial agents, and cancer-chemotherapeutic agents are emphasized. The discussion of each group of drugs attempts to include its historical background as well as cover the physiological and the pharmacological bases of its action. Pharmacological effects, clinical indications and contraindications, recommended dosage, and toxicity are considered. For each system, a review of relevant physiology is presented.

## PHILOSOPHY

Courses in philosophy (designated PHIL) may be applied toward

- the general education requirement in the arts and humanities;
- a secondary specialization in philosophy;
- supporting credit for a primary or a secondary specialization in English, history, or humanities; and
- electives.

UM UC offers only a limited number of courses each semester in this discipline. To complete a secondary specialization, students may need to take courses at other institutions in the University System of M aryland or to extend the time spent in fulfilling degree requirements. Students are advised to consult a counselor before selecting this discipline as a secondary specialization.

PHIL 100

## Introduction to Philosophy (3)

SeeHUMN 125.
PHIL 140
C ontemporary M oral Issues (3)
See H UM N 141.
PHIL 170
Introduction to Logic (3)
SeeHUMN 170.
PHIL 173
Logic and the English Language (3)
SeeHUMN 173.
PHIL 236
Philosophy of Religion (3)
SeeHUMN 236.
PHIL 245
Political and Social Philosophy (3)
See HUMN 245.

PHIL 307
Asian Philosophy (3)
See HUMN 307.
PHIL 320
M odern Philosophy (3)
See HUMN 308.
PHIL 340
Making Decisions (3)
See HUMN 345.
PHIL 342
Moral Problems in Medicine (3)
See HUMN 342.
PHIL 343
Sexual M orality (3)
See HUMN 343.
PHIL 385
Philosophy and Computers (3)
See HUMN 385.
PH IL 447
Philosophy of Law (3)
SeeHUMN 447.

## PHYSICS

C ourses in physics (designated PH YS) may be applied toward

- the general education requirement in the biological and physical sciences; and
- electives.

PH YS 111

## Physics in the Modern World (3)

(T he first semester of a survey of general physics. For the general student. O nly minimal use of mathematics is required. D oes not satisfy the requirements of the professional schools.) A concepts-oriented overview of the role of physics in science, technology, and society today.

## PH YS 121 <br> Fundamentals of Physics I (4)

(The first semester of a two-semester sequence in general physics; together with PH YS 122 generally satisfies the minimum requirement of medical and dental schools. Fulfills the laboratory science requirement.) Prerequisite: M ATH 115 or knowledge of basic trigonometry. An exploration of the fields of mechanics, heat, sound, electricity, magnetism, optics, and modern physics.

## PH YS 122

## Fundamentals of Physics II (4)

(A continuation of PH YS 121. Together with PH YS 121 generally satisfies the minimum requirement of medical and dental schools. Fulfills the laboratory science requirement.) Prerequisite: PH YS 121 or equivalent. Further investigation of major topics.

## PH YS 161 <br> General Physics: Mechanics and Particle D ynamics (3)

Prerequisite or corequisite: M ATH 141. A study of the laws of motion, force, and energy. The principles of mechanics, collisions, linear momentum, rotation, and gravitation are investigated. Students may receive credit for only one of the following courses: PH YS 141, PH YS 161, PH YS 171, or PH YS 191.

PH YS 262

## General Physics: Vibrations, Waves, Heat, Electricity, and M agnetism (4)

(Fulfills the laboratory science requirement.) Prerequisite: PH YS 161. A study of vibrations, waves, and fluids; heat, kinetic theory, and thermodynamics; and electrostatics, circuits, and magnetism. Students may receive credit for only one of the following courses: PH YS 142, PH YS 192, PH YS 262, or PH YS 272.

PH YS 263

## General Physics: Electrodynamics, Light, Relativity, and Modern Physics (4)

(Fulfills the laboratory science requirement.) Prerequisite: PH YS 262. A presentation of electrodynamics, M axwell's equations, and electromagnetic waves; geometrical optics; interference and diffractions; special theory of relativity; and modern physics. Students may receive credit for only one of the following courses: PH YS 263, PH YS 273, or PH YS 293.

## PSYCHOLOGY

## C ourses in psychology (designated PSYC) may be applied toward

- the general education requirement in the social and behavioral sciences;
- a primary or a secondary specialization in psychology;
- supporting credit for a primary or a secondary specialization in behavioral and social sciences or other areas as approved by a counselor; and
- electives.

A description of the curriculum begins on p. 46.
PSYC 100

## Introduction to Psychology (3)

A survey of the basic principles, research concepts, and problems in psychological science. The biological, cognitive, and social perspectives of human thought and behavior are addressed. Topics include neuroscience, sensation and perception, learning and conditioning, memory, motivation, language and intelligence, personality and social behavior, and psychopathology and therapy. Applications of psychology are also presented. Students may receive credit for only one of the following courses: BEH S 101 or PSYC 100.

## PSYC 200

## Statistical Methods in Psychology (3)

(Also offered as BEH S 202.) Prerequisites: M ATH 107 or M ATH 115, and PSYC 100. An introduction to quantitative methods used in psychological research. Students may receive credit for only one of the following courses: BEH S 202, BEHS 302, BM GT 230, ECON 321, GNST 201, M GM T 316, PSYC 200, SO CY 201, STAT 100, or STAT 400.

PSYC 221

## Social Psychology (3)

(Also offered as BEH S 221.) Prerequisite: PSYC 100. An examination of the influence of social factors on individual and interpersonal behavior. Topics such as conformity, attitudinal change, personal perception, interpersonal attraction, and group behavior are covered. Students may receive credit for only one of the following courses: BEH S 221, BEH S 421, BEH S 450, or PSYC 221.

## PSYC 235

## Psychology of Adjustment (3)

(Appropriate for students not specializing in psychology.) Prerequisite: PSYC 100. Theory and research on the psychology of personal adjustment in everyday life. Emphasis is on selfconcept, emotions, self-control, interpersonal relations, and stress.

PSYC 301

## Biological Basis of Behavior (3)

Prerequisite: PSYC 100; PSYC 200 recommended. An introduction to the anatomical structures and physiological processes that determine behavior. Topics include the acquisition and processing of sensory information, the neural control of movement, and the biological bases of complex behaviors such as sleep, learning, memory, sex, language, and addiction, as well as the basic functioning of the nervous system.

PSYC 305

## Experimental Methods in Psychology (3)

Prerequisites: PSYC 100 and 200, or permission of teacher. A survey of research methods in sensory systems, memory and cognition, motivation, development, and personality and social behavior. Statistical and computer applications are introduced. O pportunities to enhance laboratory skills and gain experience in the psychological sciences are provided. Students may receive credit for only one of the following courses: PSYC 305 or PSYC 309N.

PSYC 307

## Special Topics in Psychology: Natural Science Theme (1-3)

Prerequisite: PSYC 100. Seminar discussion of topics of current interest. The areas explored may extend or augment those covered in more general topical courses. M ay be repeated to a maximum of 6 credits when topics differ.

PSYC 308

## Special Topics in Psychology: Social Science Theme (1-3)

Prerequisite: PSYC 100. Seminar discussion of topics of current interest. The areas explored may extend or augment those covered in more general topical courses. M ay be re peated to a maximum of 6 credits when topics differ.

PSYC 309

## Special Topics in Psychology: Clinical Science Theme (1-3)

Prerequisite: PSYC 100. Seminar discussion of topics of current interest. The areas explored may extend or augment those covered in more general topical courses. M ay be repeated to a maximum of 6 credits when topics differ.

PSYC 310

## Perception (3)

( N ot open to students who have completed PSYC 410.) Prerequisite: PSYC 100; PSYC 200 and 305 recommended. A survey of phenomena and theories of perception. Aspects considered include the psychological, anatomical, physiological, and environmental factors important in determining how humans perceive the world. Historical background and contemporary research are examined.

## PSYC 315

## Motivation (3)

Prerequisites: PSYC 100 and 301; PSYC 200 and 305 recommended. A study of the interaction of physiological, neurological, and pharmacological aspects of motivation with environmental influences such as culture, learning, and social dynamics. Relevant issues such as aggression, sex, achievement, and cognition are discussed.

## PSYC 332

## Psychology of Human Sexuality (3)

Prerequisite: PSYC 100. A survey of historical and contemporary psychological views on a wide variety of sexual behaviors. Topics include theory and research on the interrelationship of life-span psychological development, psychological functioning, interpersonal processes, and sexual behaviors. Political and social issues involved in current sexual norms and practices are also discussed.

## PSYC 334

## Psychology of Interpersonal Relationships (3)

Prerequisite: PSYC 100; PSYC 200 and 305 recommended. A study of research and theory on the development, maintenance, and dissolution of human relationships, followed by consideration of practical applications. Processes critical to successful relating (such as communication, bargaining, and resolution of conflict) are central topics. Focus is also on issues that are specific to troubled dyadic relations of equal partners (such as jealousy, spousal abuse, and divorce).

PSYC 336

## Psychology of Women (3)

Prerequisite: PSYC 100. A survey of the biology, life-span development, socialization, personality attributes, mentalhealth factors, and special problems of women.

## PSYC 337

## Community Psychology (3)

Prerequisite: PSYC 100. A survey and critical examination of the interrelationship of environmental factors and variations in individual functioning. The effects of social process and social structure on the mental health of individuals in community life are evaluated. Discussion covers both theoretical models and other topics in community psychology.

## PSYC 341

## Introduction to Memory and Cognition (3)

Prerequisite: PSYC 100; PSYC 200 and 305 recommended. An introduction to the basic models, methods of research, and findings in the fields of memory, problem solving, and language. Applications as well as theory are explored.

## PSYC 345

## Group D ynamics (3)

(Formerly PSYC 309M .) Prerequisites: PSYC 100 and 221; PSYC 200 and 305 recommended. An analysis and exploration of psychological forces in small-group behavior. Issues of growth, conflict, and successful performance are considered. Emphasis is on the application of rigorous scientific theory and research to the impact group dynamics has on real organizational and community problems. M ajor topics include group development, team building, sports psychology, multicultural influence, social advocacy, and leadership. Students may receive credit for only one of the following courses: PSYC 309M, PSYC 345, or SO CY 447.

PSYC 353

## Adult Psychopathology (3)

Prerequisite: PSYC 100; PSYC 200 and 305 recommended. An examination of mental disorders among adults. The identification and diagnosis of specific disorders are covered; etiology and treatment are investigated. Students may receive credit for only one of the following courses: PSYC 331, PSYC 353, or PSYC 431.

## PSYC 354

## Cross-Cultural Psychology (3)

(Fulfills the international perspective requirement.) Prerequisite: PSYC 100; PSYC 200 and 305 recommended. An exploration of cultural components of theories and research in the fields of personality, social psychology, and community psychology. The interplay of individual, ethnic, and cultural factors in psychosocial growth and well-being, as well as in cross-cultural and cross-ethnic communication, are stressed. C ounseling and psychotherapeutic interactions are discussed.

PSYC 355

## Child Psychology (3)

Prerequisite: PSYC 100; PSYC 200 and 305 recommended. A survey of research and theory of psychological development, from conception through childhood. Physiological, conceptual, and behavioral changes are addressed, with attention to the social and biological context in which individuals develop. Students may receive credit for only one of the following courses: PSYC 333, PSYC 355, or PSYC 433.

## PSYC 356

## Psychology of Adolescence (3)

Prerequisites: PSYC 100 and 355; PSYC 200 and 305 recommended. A description of adolescent development according to research and theory. The physiological, intellectual, and social changes of the teen years are viewed as interrelated, and the systems dealing with those changes are examined.

## PSYC 357

## Psychology of Adulthood and Aging (3)

Prerequisite: PSYC 100; PSYC 200 and 305 recommended. An overview of the development of physiological, intellectual, and interpersonal social functioning from early adulthood through the aging years. The dual theme is that of stability and change. Theory and research are studied, and their implications are discussed.

PSYC 361

## Survey of Industrial and Organizational Psychology (3)

Prerequisite: PSYC 100; PSYC 200 and 305 recommended. A general survey of the field of industrial/organizational psychology. Topics include entry into the organization (recruitment, selection, training, socialization); organizational psychology (motivation, attitudes, leadership); and productivity in the workplace (quality of work, performance appraisals, absenteeism, turnover). The role that the larger environment plays in influencing behavior and attitudes on the job is also considered.

## PSYC 402

## Physiological Psychology (3)

Prerequisites: PSYC 100 and 301; PSYC 200 and 305 recommended. An introduction to research on the physiological basis of human behavior. Sensory phenomena, motor coordination, emotion, drives, and the neurological processes of learning are covered. Students may receive credit for only one of the following courses: PSYC 402 or ZOOL 323.

PSYC 403

## Animal Behavior (3)

Prerequisites: PSYC 100 and 301; PSYC 200 and 305 recommended. An inquiry into the social interactions, learning, sensory processes, motivations, and other aspects of animal behavior. Study explores experimental methods. Emphasis is on the behavior of mammals.

PSYC 405

## Applied Behavioral Analysis (3)

Prerequisites: PSYC 100 and either PSYC 200, PSYC 305, or permission of teacher. A review of various features of human behavior. Both theoretical and research-reporting literature are evaluated in the application of operant and respondent conditioning principles. Approaches to behavioral problems in school, home, and professional settings are analyzed.

## PSYC 415

## History of Psychology (3)

Prerequisites: PSYC 100 and two upper-level psychology courses. A study of the origins of psychology in philosophy and biology, and the development of psychology as a science in the 19th and 20th centuries. Current theoretical perspectives and experiments are considered in relation to the enduring problems of psychology, as well as the roles of culture, science, and technology in the development of psychological ideas.

## PSYC 424

Communication and Persuasion (3)
Prerequisites: PSYC 100 and 221; PSYC 200 and 305 recommended. A study of the effect of social communication on behavior and attitudes. Theory and research concerning social influence and change of attitude are examined.

PSYC 432
Introduction to Counseling Psychology (3)
Prerequisites: PSYC 100 and two upper-level psychology courses. A survey and critical analysis of research and intervention strategies developed and used by counseling psychologists. H istorical as well as current trends in content and methodology are examined.

## PSYC 435

Personality Theories (3)
Prerequisite: PSYC 100. A study of major theories and perspectives on personality, including trait, psychodynamic, behavioristic, and humanistic theories. Methods of personality research and relevant findings are also introduced and applied to real-world settings.

PSYC 436

## Introduction to Clinical Psychology (3)

Prerequisites: PSYC 100 and two upper-level psychology courses. A survey of diagnostic and therapeutic strategies employed by clinical psychologists. The scientist-practitioner model is emphasized through the critical analysis of theories and empirical research that provide the foundation for determining effective treatments of mental disorders.

PSYC 441

## Psychology of Human Learning (3)

Prerequisite: PSYC 100; PSYC 200 and 305 recommended. A review and analysis of the major phenomena and theories of human learning. Conditioning, the application of behavior analysis to real-world problems, and laboratory techniques in learning research are also presented.

## PSYC 442

## Psychology of Language (3)

Prerequisites: PSYC 100 and 341 ; PSYC 200 and 305 recommended. An introductory survey of topics on psycholinguistic research, theory, and methodology. Emphasis is on the contribution of linguistic theory to the psychological study of linguistic behavior and cognition. Linguistic theory and the psychological studies of syntax and semantics are presented. O ther topics include the biological basis of the grammars of language and speech, phonetics and phonological performance, and the perception and production of speech. The role of language as part of cognitive development is assessed, and the relation of language comprehension to thought is analyzed.

PSYC 443

## Thinking and Problem Solving (3)

Prerequisites: PSYC 100 and 341; PSYC 200 and 305 recommended. A survey of topics in the psychology of thinking and problem solving. Current theories, data, and research on methods of problem solving are studied in light of the historical development of this field. M ajor concepts of inquiry include formal problem-solving theory, computer models of thinking and human problem-solving behavior, and strategies for sharpening thinking processes and making problemsolving behaviors more effective.

## PSYC 451

## Principles of Psychological Testing (3)

Prerequisites: PSYC 100 and 200; PSYC 305 recommended. An examination of basic concepts and theories of psychological assessment, including test development. Social, legal, cultural, and ethical considerations in psychological testing are also discussed.

PSYC 464

## Psychology of Leaders in Work Organizations (3)

Prerequisites: PSYC 100 and 361; PSYC 200 and 305 recommended. A study of the psychological assumptions and implications of various theories of management and leadership. The challenges examined include selecting and training workers, developing workers' careers, changing the behavior of managers, and influencing organizational processes. The ways managers' behavior is affected by the larger environment, the nature of the product or service, and the organizational structure are also considered.

PSYC 465

## Psychology of Organizational Processes (3)

Prerequisites: PSYC 100 and 361; PSYC 200 and 305 recommended. A review of various theories of interpersonal, intragroup, and intergroup relations. Emphasis is on issues of conflict, competition, and cooperation, in light of the role of power in organizations. Ways of diagnosing organizational problems, and intervention as a means of solving them, are explored.

## PSYC 466

## Environmental and Ecological Psychology (3)

Prerequisite: PSYC 100; PSYC 200 and 305 recommended. An examination of the measurement, description, and impact of the physical environments that affect various aspects of cognition and social behavior in school, at work, and at leisure. Topics include responses to environmental stress and catastrophes, personal and space territoriality, urban living, and psychological solutions to everyday environmental problems.

PSYC 486

## Psychology Internship Through Cooperative Education (3 or 6)

(Also listed as COOP 486P.) Prerequisites: Formal admission to Co-op program (students should call 301-985-7780 for information), 30 semester hours completed, a minimum GPA (overall and in all psychology courses) of 3.0, and PSYC 305 (for a research internship) or PSYC 436 (for a clinical internship) or equivalent. Supervised field experience in clinical psychology or psychology research. The opportunity to gain experience in hospital, school, clinical, and research or other appropriate work settings is provided. Work may be paid or unpaid and must take place at an approved site as arranged by the student. Academic assignments are also required. Students seeking a first bachelor's degree may earn a maximum of 15 semester hours of credits in Co-op; students seeking a second bachelor's degree may earn a maximum of 9 semester hours in Co-op.

## SOCIOLOGY

## C ourses in sociology (designated SOCY) may be applied toward

- the general education requirement in the social and behavioral sciences;
- a primary or a secondary specialization in sociology or sociology/anthropology;
- supporting credit for a primary or a secondary specialization in sociology/anthropology, behavioral and social sciences, business and management, management, management studies, psychology, and other areas when appropriate and as approved by a counselor; and
- electives.

A description of the curriculum begins on p. 47. A description of the curriculum for a specialization in sociology/ anthropology appears on p .48.

## SOCY 100

## Introduction to Sociology (3)

An introduction to the fundamental concepts and principles of sociology. The study of cultures, patterns of social values, social institutions, stratification, and social change is delineated. Students may receive credit for only one of the following courses: BEH S 102 or SO CY 100.

## SOCY 201

## Introductory Statistics for Sociology (4)

Prerequisites: M ATH 111 and SOCY 100, or equivalent. An overview of elementary descriptive and inferential statistics. Presentation covers constructing and percentaging bivariate contingency tables, discovering frequency distributions and presenting them in graphics, and calculating measures of central tendency and dispersion. O ther topics are parametric and nonparametric measures of association and correlation; regression; probability; hypothesis testing; the normal, binomial, and chi-square distributions; and point and interval estimates. Students may receive credit for only one of the following courses: BEH S 202, BEH S 302, BM GT 230, ECON 321, GNST 201, M GMT 316, PSYC 200, SOCY 201, STAT 100, or STAT 400.

SOCY 227

## Introduction to the Study of D eviance (3)

An introduction to the sociological study of deviant behavior. M ajor topics include mental illness, sexual deviance, and the use of drugs. Students may receive credit for only one of the following courses: SOCY 227 or SO CY 327.

## SOCY 230

## Sociological Social Psychology (3)

A study of the theories of socialization and their applications. Topics include socialization through the life span, selfconcept, attitudes, emotion, attribution, interpersonal relations, group processes, deviance, and social change.

## SOCY 243 <br> Sociology of M arriage and Family (3)

A study of demographic trends in family and marriage, including childbearing and divorce, sociological theories of mate selection, marital interaction, and marital dissolution. C ontemporary controversial issues, such as the relationship of unmarried couples, alternative marriage forms, abortion, and violence in the family, are discussed. Students may receive credit for only one of the following courses: SO CY 243 or SO CY 343.

## SOCY 300

## American Society (3)

A survey of the social structure and organization of American society, with special reference to recent social changes. The character, structure, values, and ideology of American social movements are examined from a sociological perspective. Specific topics include urban demographic changes and other population trends, as well as changes in the conduct of work, family life, and recreation.

## SOCY 312

## Family D emography (3)

Prerequisite: 3 credits in sociology. A study of the family and population dynamics. Issues of fertility, such as teenage pregnancy, the timing of parenthood, and the determinants and consequences of family size, are discussed as they relate to family behavior such as marital patterns, the use of child-care options, and the relationship between work and the family. Issues of policy as related to demographic changes in the family are also considered.

## SOCY 325

## The Sociology of Gender (3)

Prerequisite: 3 credits in sociology. An inquiry into the institutional bases of gender roles and gender inequality, cultural perspectives on gender, gender socialization, feminism, and genderrole change. Emphasis is on contemporary American society.

SO CY 398
Special Topics in Sociology (3)
Prerequisite: 3 credits in sociology. Topics of special interest both to students who are specializing in sociology and to other students. M ay be repeated to a maximum of 6 credits when topics differ.

SOCY 423

## Ethnic M inorities (3)

(Fulfills the international perspective requirement.) An exposition of basic social processes in the relations of ethnic groups, immigrant groups, African Americans, and $N$ ative Americans in the United States, and of ethnic minorities in Europe.

## SOCY 424 <br> Sociology of Race Relations (3)

An analysis of race-related issues, focusing mainly on American society. Topics covered include the historical emergence, development, and institutionalization of racism; the effects of racism on its victims, and conflicts that are racially based.

## SOCY 425 <br> Gender Roles and Social Institutions (3)

An investigation of the relationship between gender roles and the structure of social institutions (such as the economy, the family, the political system, religion, and education). Discussion covers the incorporation of gender roles into social institutions, perpetuation or transformation of gender roles by social institutions, and how changes in gender roles affect social institutions.

## SOCY 426

## Sociology of Religion (3)

A survey of the varieties and origins of religious experience and religious institutions. The role of religion in social life is explored.

## SOCY 427

## D eviant Behavior (3)

An exploration of current theories of the genesis and distribution of deviant behavior. Specific topics include definitions of deviance, implications for a general theory of deviant behavior, labeling theory, and secondary deviance.

## SOCY 430

## Social Structure and Identity (3)

A study of theoretical issues in social psychology, focusing on social construction of identity. Identity formation and transformation in social processes and structural and cultural dimensions of social identity are covered.

## SOCY 431 <br> Principles of $\mathbf{O}$ rganizations (3)

An examination of characteristics of effective organizational structures and processes. The effects of various institutional environments, small group processes, organizational networks, and leadership qualities are considered. Types of organizations studied include formal bureaucracies, professional organizations, and volunteer associations.

## SO CY 432

## Social Movements (3)

An examination of movements that seek change in the social and political structure of society. Topics include the origins, tactics, organization, recruitment, and success of such movements. C ase studies feature movements in the areas of labor, civil rights, feminism, the environment, student and neighborhood activism, and gay rights.

## SOCY 441 <br> Social Stratification and Inequality (3)

A sociological study of social class, status, and power. Topics include theories of stratification, correlates of social position, functions and dysfunctions of social inequality, status inconsistency, and social mobility.
SOCY 443

## The Family and Society (3)

An examination of the family as a social institution. Its biological and cultural foundation; its historic development, changing structure, and function; the interaction of marriage and parenthood; and the disorganizing and reorganizing factors in current trends are explored.

## SOCY 462

## Women in the Military (3)

A cross-national analysis of past, present, and future trends in women's roles in the military. Topics include the effects on women's roles in the armed forces by cultural forces, national security, technological changes, demographic patterns, occupational structures, labor shortages, and considerations of efficiency and rationality. Students may receive credit twice under this course number when course titles differ.

SOCY 463

## Sociology of Combat (3)

A study of sociological theories and concepts related to combat, including the influence of historical events on relations between nations and between the military and society. Topics include the effects of the U.S. social structure on actions in combat and the effects of involvement in combat on both the social structure and members of society. Cohesion and leadership in military units is also covered.

## SOCY 464

## Military Sociology (3)

An overview of social change and its effects on the growth of military institutions. The structure of complex formal military organizations is clarified. Military service is evaluated as an occupation or a profession. The sociology of military life as a distinct cultural ethos is probed. The interrelations of military institutions, civilian communities, and society are explored.

## SPANISH

## Courses in Spanish (designated SPAN) may be applied toward

- the general education requirement for international perspective coursework;
- a primary or a secondary specialization in area studies (when appropriate);
- a secondary specialization in foreign languages; and
- electives.

UM UC offers a limited number of foreign language courses each semester.

SPAN 101

## Elementary Spanish I (4)

(O pen only to students with fewer than two years of Spanish. Fulfills the international perspective requirement.) Introduction to the functions and structures of the Spanish language, with emphasis on the four skills of listening, speaking, reading, and writing.

## SPAN 102

## Elementary Spanish II (4)

(Fulfills the international perspective requirement.) Prerequisite: SPAN 101 or equivalent. Further study of the functions and structures of the Spanish language, with emphasis on the four skills of listening, speaking, reading, and writing.

## SPAN 201

## Intermediate Spanish (4)

(Fulfills the international perspective requirement.) Prerequisite: SPAN 102, SPAN 103, or equivalent. Continued development of the functions and structures of the Spanish language with emphasis on the four skills of listening, speaking, reading, and writing. Students may receive credit for only one of the following courses: SPAN 201 or SPAN 203.

## SPEECH

C ourses in speech (designated SPCH) may be applied toward

- the general education requirement in communications;
- a primary or a secondary specialization in communication studies;
- an emphasis in speech communication within a specialization in communication studies;
- a secondary specialization in speech;
- supporting credit for a management-related primary or secondary specialization as approved by a counselor; and
- electives.

SPCH 100
Foundations of Speech Communication (3)
(Prerequisite for all 300- or 400-level speech courses.) An overview of the principles of communication. Verbal and nonverbal language, listening, group dynamics, and public speaking are highlighted. Emphasis is on applying communication principles to contemporary problems and preparing various types of oral discourse. Students may receive credit for only one of the following courses: SPCH 100 or SPCH 107.

SPCH 107

## Speech Communication: Principles and Practice (3)

Study and practice in oral communication, covering principles of interviewing, group discussion, listening, informative briefings, and persuasive speeches. Students may receive credit for only one of the following courses: SPCH 100 or SPCH 107.

## SPCH 125

## Introduction to Interpersonal Communication (3)

An overview of the concepts of interpersonal communication. M ajor concepts include nonverbal communication, the relationship of language to meaning, perception, listening, and feedback.

SPCH 200

## Advanced Public Speaking (3)

A study of rhetorical principles and models of speech composition. Principles are studied in conjunction with preparing and presenting particular forms of public communication.

SPCH 220

## Small-G roup Discussion (3)

A consideration of the principles, methods, and types of discussion. Principles are applied to the analysis of contemporary problems.

SPCH 222

## Interviewing (3)

A presentation of the principles and practices used in the recognized types of interview. Special attention is given to behavioral objectives and variables in communication as they figure in the process of interviewing. Students may receive credit for only one of the following courses: SPCH 222 or SPCH 422.

## SPCH 324

## Communication and Gender (3)

An investigation of the way communication creates images of male and female. Consideration is given to what constitutes masculine and feminine characteristics, the differences between male and female behavior and styles in communicating, and the implications of those images and styles for interpersonal transactions.

## SPCH 397

## D elivering 0 rganizational Presentations: Technique and Technology (3)

Prerequisite: SPCH 100 or equivalent. Focus is on techniques for planning small- and large-group presentations, including audience profiling and needs analysis. Focus is on recognizing listener patterns and preferences and organizing presentations in ways that are memorable. In medium- and large-group presentations, confidence-building techniques are used, platform skills are refined, and audio/video technology and presentation software (such as PowerPoint) are skillfully employed to enhance presentations.

SPCH 420
Group Discussion and Decision Making (3)
Prerequisite: SPCH 100 or equivalent. A study of current theory, research, and techniques regarding small-group process. Group dynamics, leadership, and decision making are covered.

SPCH 421

## Communication M anagement (3)

Prerequisite: SPCH 100 or equivalent. A study of communication policies, plans, channels, and practices in the management of the communication function in organizations.

## SPCH 423

## C ommunication Processes in Conferences (3)

Prerequisite: A course in speech communication. An exploration of methods of problem solving, semantic aspects of language, and interpersonal dynamics in conferences. Focus is on two aspects of conferences: how communication facilitates participation by members of the group, and how conferences function in settings of business, industry, and government.

## SPCH 424 <br> Communication in Complex Organizations (3)

Prerequisite: A course in speech communication. An examination of the structure and function of communication in organizations. O rganizational climate and culture, information flow, networks, and role relationships are major themes.

## SPCH 426

## Negotiation and C onflict M anagement (3)

Prerequisite: SPCH 100 or equivalent. A study of the role of communication in shaping negotiation and conflict processes and outcomes. Simulation and role play are used to model workplace practices.

## SPCH 427

## Communication Assessment (3)

(Students should have familiarity with basic statistical concepts and techniques.) Prerequisite: SPCH 421. Field research in designing, administering, and evaluating communication audits. M ethods for evaluating the effectiveness of particular messages in an organization's internal and external communication (such as focus groups) are studied, and the effectiveness of communication training is evaluated through preand post-testing.

## SPCH 470

## Listening (3)

A survey of theories of the listening process. Emphasis is on functional analysis of listening behavior. Students may receive credit only once under this course number.

## SPCH 472

## Theories of Nonverbal Communication (3)

Prerequisite: A course in speech communication. A survey of nonverbal communication in human interactions. Theory and research on proxemics, kinesics, and paralinguistics are recognized and identified in expressions of relationship, affect, and orientation both within and across cultures.

## SPCH 482

## Intercultural C ommunication (3)

(Fulfills the historical and international perspective requirements.) Prerequisite: A course in speech communication. An examination of the major variables of communication in an intercultural context. Topics include cultural, racial, and national differences; stereotypes; values; cultural assumptions; and verbal and nonverbal channels.

## STATISTICS AND PROBABILITY

## C ourses in statistics and probability (designated STAT) may be applied toward

- the general education requirement in mathematics;
- a primary or a secondary specialization in mathematics; and
- electives.

STAT 100

## Elementary Statistics and Probability (3)

Prerequisite: M ATH 199A, M ATH 199M, M ATH 107, or M ATH 110. Introduction to the simplest tests of statistical hypotheses; applications to before-and-after and matchedpair studies; and events, probability, combinations, and independence. Other major topics include binomial probabilities and confidence limits, as well as random variables, expected values, median, and variance. Explication extends to tests based on ranks, law of large numbers and normal approximation, and estimates of mean and variance. Students may receive credit for only one of the following courses: M AT H 111 or STAT 100.

## STAT 400

## Applied Probability and Statistics I (3)

Prerequisite: M ATH 141. An intermediate study of statistical theory. Topics include random variables and standard distributions. Study extends to sampling methods, law of large numbers and the central-limit theorem, moments, estimation of parameters, and testing of hypotheses. Students may receive credit for only one of the following courses: EN ES 324 or STAT 400.

STAT 401

## Applied Probability and Statistics II (3)

(A continuation of STAT 400.) Prerequisite: STAT 400. Explication of more advanced statistical concepts. M ajor concepts covered include sufficient and consistent estimators, minimum variance and maximum likelihood estimators, point estimation, and interval estimation. Applications include testing of hypotheses, regression correlation and analysis of variance, sampling distributions, sequential tests, and elements of nonparametric methods.

STAT 410

## Introduction to Probability Theory (3)

Prerequisites: M ATH 240 and 241. A discussion of probability and its properties. Presentation covers random variables and distribution functions in one dimension and in several dimensions, as well as moments, characteristic functions, and limit theorems.

## STAT 450

## Regression and Variance Analysis (3)

Prerequisite: STAT 401 or STAT 420. A study of statistical techniques, concentrating on one, two-, three, and fourway layouts in analysis of variance. C oncepts and techniques presented include multipleregression analysis, the Gauss$M$ arkov theorem, fixed-effects models, linear regression in several variables, and experimental designs.


## TECHNOLOGY AND MANAGEMENT

## C ourses in technology and management (designated TM G T) may be applied toward

- an emphasis in technology and management within a specialization in business and management;
- a primary or a secondary specialization in business and management, technology and management, or management studies;
- supporting credit for a primary or a secondary specialization in business and management or other management and computer-related specializations; and
- electives.

M ost courses require extensive writing. Students should complete a writing course (EN GL 101 or EN GL 391) or have equivalent writing experience before enrolling.

The technology and management specialization will be discontinued by fall 2001 and is being absorbed into the business and management specialization as an emphasis, beginning fall 1999, with reduced course offerings. Students are urged not to select technology and management as a primary specialization if they have not already completed at least 12 semester hours in the specialization, including required courses. If all coursework for the primary specialization is not completed by the end of summer 2001, credit earned in TM GT courses may be applied toward a primary specialization in either business and management or management studies. All requirements of the new specialization must be met. Students should consult their team counselor for further information on courses and options.

A description of the curriculum begins on p. 48. Descriptions of other management-related curricula may be found on the following pages: accounting ( p .16 ), business and management (p. 18), environmental management (p.31), fire science ( $p .32$ ), health services management ( $p .34$ ), hotel and restaurant management (p.37), management (p. 41), and management studies (p. 43).

## TM GT 201

## Introduction to C omputer-Based Systems (3)

An overview of computer information systems. H ardware, software, procedures, systems, and human resources are introduced. Integration and application in business and in other segments of society are assessed. Introductory exposure to software packages (for example, word-processing and database) is included. Students may receive credit for only one of the following courses: CAPP 101, CAPP 300, IFSM 201, or TM GT 201.

## TM GT 302 <br> M anagement: Perspectives, Process, Productivity (6)

A systematic exploration of management processes and organizational behavior. M ajor topics are planning, leading, group dynamics, and motivation. O rganizational, behavioral, and systems perspectives on management are compared. Recent perspectives on productivity, quality, human resource management, and organizational culture are emphasized. Students may receive credit for only one of the following courses: BM GT 364, TEM N 202, TEM N 300, TM GT 301, or TM GT 302.

## TM GT 305 <br> Managing in the Public Sector (6)

An exploration of the nature of public-sector management, including issues of public accountability, the budgetary process, and personnel. M odels of decision making and the characteristics of the policy-making process on federal, state, and local levels are examined. M ethods and mechanisms of policy analysis, including cost/benefit analysis and program evaluation, are introduced.

## TM GT 310 <br> Problem Solving (6)

Presentation of the theoretical and practical aspects of strategies used in solving problems, an activity that takes up much of the manager's day. Approaches evaluated include holistic thinking, the use of analogy, internal brainstorming and other methods of creative thinking, the development of an ability to shift perspectives, the scientific method, the anal ysis of language, systems analysis, and graphic representations. C ase studies are used to illustrate the definition of the problem, the formulation of hypotheses, and the collection and analysis of data.

TM GT 320

## Finance for the Nonfinancial Executive (6)

( $M$ ay be used as either a stand-alone survey course in finance or an introduction to higher-level finance courses for those who wish to pursue the subject further.) An introduction to the financial fundamentals needed by functional experts and upwardly mobile managers in human resources, marketing, production, and general management. Focus is on preparation for assuming higher-level corporate positions or undertaking entrepreneurial activities that require a basic knowledge of finance. The world of finance and its argot and operations are presented in a simple, step-by-step manner. Topics include financial statements and forecasting, capital budgeting, project evaluation, working capital management, and international financial management. Emphasis is on practical applications more than theory. Students may receive credit for only one of the following courses: M GM T 398D or TM GT 320.

TMGT 350

## Organization D evelopment (6)

Introduction to a method of making organizations and individuals more adaptive and productive. The objective is to help organizations cope with change. Techniques of intervention such as team building, process consultation, feedback, and conflict resolution are introduced and explained. Students may receive credit for only one of the following courses: BM GT 465, M GM T 398K, M GM T 465, or TM GT 350.

TM GT 398
Special Topics in Technology and Management (1-6)
Topics of special interest to students and faculty. $M$ ay be repeated to a maximum of 6 credits when topics differ.

## TM GT 411 Systems Performance (6)

Presentation of analytical approaches to comprehending systems. Focus is on powerful techniques for solving problems of managing people and for understanding their behavior in organizations. Examples of well-known systems failures and catastrophes are used to illustrate systems analysis. Case studies of manufacturing companies, municipal government, and a nuclear power plant are investigated. Techniques delineated include systems diagramming, boundary setting, and systems modeling.

## TM GT 412

## Program Analysis and Evaluation (6)

A survey of the techniques and methodologies used to determine whether programs are operating successfully. M ajor topics covered include identifying the goals and objectives of a program, examining the use of specific research designs for collecting data, collecting and using data/information for analysis and evaluation, and recognizing the functions that statistics serve in evaluation processes.

TM GT 430

## Project M anagement (6)

An exploration of management beyond bureaucracy-the delineation of job roles in nonroutine work situations. M anagement of projects is presented as a means of production in research firms, high-technology manufacturing and engineering firms, system implementations, and consulting practices. Appropriate organizational structures, such as collegial and matrix types, are described and assessed. The practical considerations of designing a project-management system are covered as well. Students may receive credit for only one of the following courses: IFSM 438 or TM GT 430.

TM GT 444

## Risk (6)

(Also listed as BEHS 444.) An interdisciplinary analysis of risk, drawing on literature in the social sciences and management. The concept of risk is explored in its economic, physical, social, and ethical manifestations. Topics include calculation of risk, recognition of the risks inherent in decisions, and risk analysis in public policy. Personal as well as academic involvement is stimulated. Students may receive credit for only one of the following courses: BEH S 444 or TM GT 444.

## TM GT 480

## Exploring the Future (6)

(Also listed as BEH S 480. Fulfills the international perspective requirement.) An examination of how to analyze and develop alternative ways of seeing the future. The interactions of population, technology, political and economic systems, values, and leadership are investigated. Techniques futurists use-including scenario construction, trend analysis, the futures wheel, and environmental scanning- are explained. Techniques are applied in societal, professional, and personal settings. Students may receive credit for only one of the following courses: BEH S 480, M GM T 398H, TM GT 401, or TM GT 480.

## THEATRE

## C ourses in theatre (designated THET) may be applied toward

- the general education requirement in the arts and humanities; and
- electives.

THET 110

## Introduction to the Theatre (3)

See HUMN 110.
THET 120

## Acting I (3)

A review of basic acting techniques, with exercises to develop concentration, imagination, sensing abilities, and emotional memory. Textual analysis, character analysis, and scene study are introduced. Assignments include applying techniques to character portrayal by performing short scenes.

WOMEN'S STUDIES

## C ourses in women's studies (designated W M ST ) may be applied toward

- supporting credit for a primary specialization in the social and behavioral sciences; and
- electives.

WM ST 200

## Introduction to Women's Studies: Women and Society (3)

An interdisciplinary study of the status, roles, and experiences of women in contemporary society. Sources from a variety of fields (such as literature, psychology, history, and anthropology) focus on the writings of women themselves.

## Academic and Administrative Requirements

SCHOLASTIC AND ADMINISTRATIVE STANDARDS

## Grading Methods

There are four grading methods at UM UC. The most commonly used is the standard method. The pass/fail alternative is available only under limited conditions (see below). The satisfactory/D/fail method is restricted to certain specified courses at higher levels. Any course may be audited. Regulations are given below.

| Grade | Interpretation | Quality Points |
| :--- | :--- | :--- |
| A | O utstanding scholarship | 4 |
| B | Good scholarship | 3 |
| C | Satisfactory scholarship | 2 |
| D | M arginal performance | 1 |
| F | Failure | 0 |
| P | Passing (D or higher) | 0 |
| S | Satisfactory (C or higher) | 0 |
| I | Incomplete | 0 |
| AU | Audit | 0 |
| W | Withdrawal | 0 |

## Standard

Unless students choose either the pass/fail or audit option at the time of registration, they will begiven a letter grade according to the standard method. Under the standard grading method, students are given a grade of A, B, C, D, or F on the basis of their performance in meeting the requirements of each course. For only a very few courses, the standard grading method is replaced by the satisfactory/D /fail method.

## Pass/Fail

Between the time of earning 30 semester hours (at least 15 of those at UM UC) and graduation, an undergraduate who is eligible (by means of having a cumulative grade-point average of 2.0) may take one course of up to 6 semester hours of credit each fall or spring semester or summer trimester on a pass/fail basis, to a maximum of 18 credits. Students must elect pass/ fail grading at the time of registration. This status may not be changed after the second week of classes has ended.

This grading method is allowed only for electives. Required courses (e.g., general education courses and supporting and core courses for the primary and secondary specializations) may not be taken pass/fail, nor may pass/fail grading be used in retaking a course for which a letter grade was earned previously.

D egreeseeking students are eligible for pass/fail grading. Transfer students are eligible only after they have completed 30 semester hours of credit, with at least 15 semester hours having been earned at UM U C.

Students who register for pass/fail grading must still complete all the regular requirements of the course. The teacher evaluates the work under the normal procedure for letter grades and submits a regular grade. Grades of A, B, C, or D are then converted to the grade $P$, which is entered into the permanent record. A grade of F remains unchanged.

Although a grade of $P$ earns credit toward graduation, it is not included in calculating a grade- point average. A failing grade carries no credit, and the failing grade is included in the computation of grade-point averages.

## Satisfactory/D/Fail

This grading method is available only on a limited basis. It is used in higher-level experiential courses and practicums (especially in the education disciplines).

Although a grade of satisfactory (S) earns credit toward graduation, it is not included in calculating grade-point averages. The grade of $D$ earns credit and is included in computing grade-point averages. W hile a failing grade (F) earns no credit, it is included in computing grade-point averages.

## Audit

Students who do not wish to receive credit may register for courses as auditors after they have been admitted. Students must indicate this intention when they register. Students may request a change from credit to audit status anytime before the end of the fifth scheduled week of a semester, or the third week of classes in an eight-week term.

Each audited course will be listed on the permanent record, along with the notation AU. No letter grade is given for the course audited, nor are credits earned.

## M arking System

The grades and marks used by U M UC to denote teachers' assessments of students' academic achievement are A, B, C, $D, F, A U, P, S, I$, and $W$. The mark of $A U$ is explained in the preceding section. The explanations of $\mathrm{P}, \mathrm{S}, \mathrm{F}, \mathrm{I}$, and W follow.

## Passing: The Grade of $\mathbf{P}$

The grade of $P$ is conferred after a teacher has evaluated course work under the normal procedure for letter grades and has submitted a standard grade (A, B, C, or D). Then Student Services converts that standard grade into the grade of $P$.

A passing grade is recorded on the permanent record and confers credit toward graduation. H owever, courses graded $P$ are not included in calculating grade-point averages.

## Satisfactory: The Grade of S

The grade of S is equivalent to a grade of C or higher. This grade is used to denote satisfactory progress in an experiential setting or practicum such as EXCL 301. Although the grade of $S$ confers credit and appears on the permanent record, courses graded $S$ are not used in determining gradepoint averages.

## Failure: $T$ he $G$ rade of $F$

The grade of $F$ means a failure to satisfy the minimum requirements of a course. A student assigned the grade of F must register again for the course, pay the applicable fees, repeat the course, and earn a passing grade in order to receive credit for that course.

A grade of F cannot be changed. Although it carries no credit, it is included in calculating the grade-point average.

## Incomplete: The M ark of I

The mark of I (incomplete) is an exceptional mark given only to students whose work in a course has been satisfactory but who for reasons beyond their control have been unable to complete all the requirements of a course. The following criteria must be met:

- The student must have completed the major portion of the work in the course.
- The work already completed must be of satisfactory quality.
- The mark of I must be requested before the end of the course.

The procedure for awarding the mark of I is as follows:

- The student must ask the teacher for a mark of I . (Teachers cannot award a mark of I on their own initiative.)
- The teacher decides whether to grant the request.
- The teacher sets a date (no more than six months after submitting the original grade) for completion of the remaining requirements of the course.
- The teacher and the student together agree on the remaining requirements of the course and the deadline for submitting the work.
- The student is responsible for completing the work.
- After the work is completed, the teacher submits a gradechange form to replace the mark of I on the student's record with a grade.
- The mark of I cannot be removed by means of credit by examination.
- The mark of I cannot be replaced by a mark of W (defined below).
- A mark of I not made up within six months becomes permanent unless a written request for an extension has been approved by the dean of Undergraduate Programs or the dean's designee.
Students who elect to repeat an incomplete course must register again for the course, pay all applicable fees, and repeat the course. For purposes of academic retention, the course grade is counted as an $F$. The mark of $I$ is not used in determining grade-point averages.


## Withdrawal: The M ark of W

Students may receive the mark of W either by completing a registration-change form in Student Services or by submitting a written request approximately two weeks before the last scheduled class in a semester or term. Either procedure constitutes official withdrawal.
This mark appears on the permanent record unless withdrawal is completed before a course begins. For purposes of academic retention, the mark of W is counted as attempted hours. It is not used in determining grade-point averages.

## C hanges in Grade

Teachers may change a grade previously assigned only by submitting a Grade Adjustment Report, along with a letter giving reasons for the change. Any change must be made no later than six months after the original grade was awarded.

## Grading Repeated C ourses

W hen a course is repeated, only the higher grade earned in the two attempts is included in the calculation of the GPA. For purposes of academic retention, both attempts are counted. Both grades are entered on the permanent record, with a notation indicating that the course was repeated. Students cannot increase the total hours earned toward a degree by repeating a course for which a passing grade was conferred previously.

To establish credit in a course previously failed or withdrawn from, students must register, pay the full tuition and fees, and repeat the entire course successfully.

## Repeated Registration for a Course

No student may register more than twice for the same course. Registering more than twice for the same course (including courses previously attempted at other institutions in the University System of $M$ aryland) is generally forbidden. It may be allowed only under special circumstances, with prior approval of a counselor.

## Grades and Quality Points

The calculation of a grade-point average is done by using the quality points assigned to each grade or mark (chart on p. 164). To obtain points received for a course, the qualitypoint value of the grade or mark is multiplied by the number of credits the course carried. To generate the GPA, total points are divided by total credits attempted for which a grade of $A, B, C, D$, or $F$ was received.

## Academic Warning and Dismissal

At the end of every term, each student's cumulative gradepoint average is computed on the basis of all UM UC grades. At the end of each fall and spring semester or summer trimester, the Student Services office takes action required by UM UC policy, as described below.

There are four levels of academic progress: satisfactory, warning, probation, and dismissal.

## Levels of Progress

## SATISFACTORY

The cumulative grade-point average is 2.0 or higher.

## WARNING

A student whose cumulative GPA is less than 2.0 will be placed on academic warning. The student will remain on academic warning as long as the cumulative GPA is less than 2.0 and the semester GPA is 2.0 or better.

A student who attempts 15 semester hours or more in a period of at least two semesters and earns no quality points will receive an academic warning regardless of the cumulative grade-point average.

A student on academic warning whose semester GPA is 2.0 or better, but whose cumulative GPA is less than 2.0, will continue on warning until he or she has completed courses at UMUC that raise the cumulative G PA to 2.0 or better.

A student on academic warning is limited to a maximum enrollment of 7 semester hours per semester or to a maximum of 4 semester hours per term I or term II.

## PROBATION

A student on academic warning or admitted on provisional status whose semester GPA is less than 2.0 will be put on probation.

A student on probation whose semester GPA is 2.0 or better, but whose cumulative GPA is less than 2.0 , will return to academic warning or provisional status.

A student on academic probation is limited to a maximum enrollment of 7 semester hours per semester or to a maximum of 4 semester hours per term I or term II.

## DISMISSAL

A student on probation whose semester GPA is less than 2.0 will be dismissed.

Regardless of cumulative GPA, a student who has maintained an average of at least 2.0 during a particular semester or trimester will not be dismissed at the end of that period. A student who is dismissed is ineligible to register again for U M UC courses until after being reinstated.

## Reinstatement After Dismissal

A student seeking reinstatement is required to

- H ave all official transcripts from previously attended colleges and universities sent to U M UC , preferably before meeting with a counselor.
- M eet with a counselor before petitioning for reinstatement.
- Wait at least one semester before petitioning for reinstatement. Such an appeal should be made in writing to the assistant vice president, Student Services and Academic C ounseling.

D eadlines for requesting reinstatement are as follows:

Fall enrollment
Spring enrollment
Summer enrollment

July 15
N ovember 15
April 15

After the student's record, the counselor's recommendation, and the student's petition have been reviewed, the student will receive a written response. Reinstated students will be placed on warning immediately or will retain provisional status, as appropriate.

## Scholastic Recognition Dean's List

Students who complete at least 12 semester hours (in courses graded A, B, C, D, or F) with a GPA of at least 3.5 in an academic year at UM UC are eligible for the D ean's List.

Students who fail to earn the required average by the end of the academic year must complete a minimum of 12 more semester hours during the next academic year to be considered for the D ean's List again. All courses taken during an academic year will be used in computing the average, even though the total number of credits may exceed 12. An academic year is designated as fall through summer terms. Eligibility for the D ean's List is calculated once a year, after the summer trimester.

## Academic H onors

Academic honors for excellence in scholarship, determined from the student's cumulative GPA, are awarded to no more than 10 percent of the graduating class. The distinction of summa cum laude is conferred on the highest 2 percent, magna cum laude on the next 3 percent, and cum laude on the next 5 percent. To be eligible for any of these categories
of recognition, a student must have earned at least 45 semester hours at UM UC in courses for which a letter grade and quality points were assigned.

For honors to be conferred with a second bachelor's degree, the student is required to have a total of 45 semester hours of UM UC credit (including the 30 semester hours of new credit) and the requisite GPA. See p. 14 for more information on attaining a second bachelor's degree.

## H onor Societies

Inquiries concerning honor societies should be addressed to the student's resource team.

## PHI KAPPA PHI

The honor society of Phi K appa Phi promotes the pursuit of excellence in all fields of higher education and recognizes outstanding achievement by students, faculty, and others through election to membership and through various awards for distinguished achievement. To qualify for membership in Phi Kappa Phi, candidates must have completed at least 90 semester hours of credit toward the bachelor's degree, at least 45 of which must have been for U M UC courses carrying letter grades of A, B, C, D, or F. The candidate's gradepoint average in UM UC courses must be in the top 10 percent of the previous U M UC graduating class.

## ALPHA SIGMA LAMBDA

UM UC students are eligible for membership in Alpha Sigma Lambda, the national honor society for students in continuing higher education. To qualify for membership, a student must be pursuing a first bachelor's degree, have completed at least 30 semester hours at UM UC in courses graded A, B, C, D, or $F$, and maintained a GPA of 3.7 or higher in all UM UC courses. At least 15 semester hours, from U M UC or transferred, must be in courses outside the primary specialization.

## SIGMA TAU DELTA

M embership in Sigma Tau Delta, an international English honor society, is open to qualified UM UC students. Qualifications include a GPA of 3.6 or higher in at least 12 semester hours of English beyond EN GL 101. All 12 semester hours must have been completed through UM U C; 6 semester hours must be upper level. Students who qualify will have also completed at least 45 semester hours toward the bachelor's degree, at least 30 of which must have been taken from UM UC, including the required English courses beyond EN GL 101 or its equivalent. A cumulative GPA of 3.5 or higher in all coursework completed with UM UC is also required.

## PHI ALPHA THETA

UM UC students may qualify for membership in Phi Alpha T heta, the international honor society in history. To qualify for membership, students must attain a GPA of 3.5 or higher in at least 12 semester hours of U M U C history courses and have an overall UM UC GPA of 3.4.

[^7]
## RESPONSIBILITIES OF THE STUDENT

## Attendance

The student is responsible for attending all classes and any related activities regularly and punctually. Absence from class does not excuse a student from missed coursework. The student is responsible for obtaining detailed information about missed class sessions, including their content, activities covered, and any announcements or assignments. Failure to complete any required coursework may adversely affect the student's grade. Teachers are not expected to repeat material that a student has missed because of the student's absence from class.

In some courses, in which active participation is integral to the learning process, teachers may base part of the final grade on class participation; those courses obviously require regular attendance. Teachers must announce any such requirement at the beginning of the semester.

C ourses offered in distance education formats have their own policies on attendance. The requirements expected for participation are specified in all courses offered in distance education formats.

## Examinations

The student is responsible for obtaining information about quizzes and examination schedules and policies. Final examina tions are usually given during the last scheduled class meeting.

M ake-up examinations and tests may be given to students who for valid reasons are unable to take exams at the scheduled time. Teachers are not required to offer make-up examinations because of a student's absence unless the student can present evidence that it was caused by unavoidable circumstances or occurred on a religious holiday.* In such cases, an examination may be rescheduled for the mutual convenience of student and teacher and must cover only the material for which the student was originally responsible. Such a rescheduling must not cause a conflict with the student's other classes. The Testing Center schedules make-up exam sessions for students whose teachers cannot schedule a special make-up session. There is a fee for this service.

## Course Loads

No student may register for courses whose scheduled meeting times overlap to any extent. Decisions on the number of courses a student can successfully complete in any one semester are normally left to the student's discretion. It should be noted, however, that the majority of UM UC students register for between 3 and 9 semester hours, and students are strongly advised not to exceed this limit. Students should carefully and realistically assess other commitments before registering for more than 9 semester hours. In no case may a student register for more than 18 semester hours in a 15-week period without written permission from his or her resource team.

Permission to register for more than 18 semester hours is based on demonstrated academic excellence at U M UC. A minimum GPA of 3.5 and an enrollment history indicating success in carrying a heavier-than-average course load at UMUC are required.

## Academic Integrity

Integrity in teaching and learning is a fundamental principle of a university. UM UC believes that all members of the university community share the responsibility for academic integrity, as expressed in the University System of M aryland policy "Faculty, Student, and Institutional Rights and Responsibilities for Academic Integrity." Details are available from the Office of the D ean, Undergraduate Programs.

At U M UC, faculty members are expected to establish classroom environments conducive to the maintenance of academic integrity by promptly giving students a complete syllabus describing the course and its requirements, grading submitted work promptly and adequately, and arranging appropriate testing conditions, including having faculty members monitor examinations given in class.

Students at UM UC are expected to conduct themselves in a manner that will contribute to the maintenance of academic integrity.

## Academic Dishonesty

Academic dishonesty is failure to maintain academic integrity. Academic dishonesty includes but is not limited to obtaining or giving aid on an examination, having unauthorized prior knowledge of an examination, doing work for another student, and plagiarism.

Plagiarism is the presentation of another person's idea or product as one's own. Plagiarism includes (but is not limited to) copying verbatim all or part of another person's work; using phrases, charts, figures, illustrations, computer programs, or mathematical or scientific solutions without citing the source; paraphrasing ideas, conclusions, or research without citing the source; and using all or part of a literary plot, poem, film, musical score, or other artistic product without attributing the work to its creator.

Students can avoid unintentional plagiarism by carefully following accepted scholarly practices. Notes taken for papers and research projects should accurately record sources of material to be cited, quoted, paraphrased, or summarized, and papers should acknowledge those sources in footnotes.

## Required Withdrawal

W hen a competent authority, using established procedure, judges a student's behavior to be detrimental to the interests of the university community, the student may be required to withdraw from UM UC.

## Process for Appealing a Grade

Procedures for appealing a grade are available from the $O$ ffice of the D ean, Undergraduate Programs.

There is a time limit for appealing a grade. Therefore, students who want to appeal a grade should initiate the process promptly.

## Nonacademic D isciplinary M atters

Students are subject to the UM U C C ode of Student Conduct. Violations of the code are considered to be violations of UM UC policy and are grounds for discipline by UM U C. Allegations of misconduct by UM UC students should be referred to the assistant vice president and registrar, Student Services.

## Procedures for Filing Students' Grievances

The procedures necessary to file a formal complaint concerning the actions of members of the UM UC faculty or administrative staff are available from the 0 ffice of the D ean, Undergraduate Programs.

## Change of Address

Students who move during the semester or term should not only leave a forwarding address with the U.S. Postal Service but should also notify Student Services as soon as possible. Forms are available in that office.

## Transfer of C redits from U M UC

To have credits earned through U M UC transferred, each student must obtain authoritative guidance from the destination institution (including other institutions in the University System of M aryland). O nly the destination institution can answer specific questions about its own residency and degree requirements or about the applicability of UM UC courses to its curricula. Specific policies dealing with transfer students are given in the appendices.

## Transcripts

Official academic records are maintained by Student Services at UM UC. O fficial transcripts show coursework taken through UM UC. For students who have received an official evaluation and have regular status, transfer credit from other institutions (including others in the University System of $M$ aryland) is listed as well. The request for a transcript from U M UC and the fee (see p. 174) should be sent to the following address:

## Student Services <br> University of M aryland University College <br> University Boulevard at Adelphi Road <br> College Park, M D 20742-1682

Students' records are considered confidential. Therefore, UM U C releases transcripts only upon receiving a signed request from the student (by mail or fax, or in person) and
payment of the appropriate fee. To pay by fax, students must use VISA or M asterC ard; credit card information must include the expiration date.

Students who were last enrolled in the European Division or the Asian Division should mail requests for transcripts directly to the $O$ ffice of Admissions and Registrations of the division or campus most recently attended, since the records of students last enrolled overseas are kept in the overseas headquarters of that division. The addresses are as follows:

```
University of M aryland University College
European Division
Attn.: Transcripts
Unit 29216
APO AE 09102
University of M aryland University College
Asian Division
Unit 5060, Box 0100
APO AP 96328-0100
```

W hen requesting transcripts, the student must specify a full name, including maiden name or any other names under which records may be filed; Social Security number; date of birth; and dates and places of attendance. Each UM UC transcript that is issued costs $\$ 3$ (rush transcripts are available for $\$ 8$ each). Payment must accompany each signed request for a transcript. There is no charge for sending a transcript to another institution in the U niversity System of M aryland. To obtain European and Asian Division transcripts by fax, students must pay a $\$ 15$ fee. Checks should be made payable to University of $M$ aryland University College.

Transcripts should be requested at least two weeks before they will actually be needed. No transcripts will be released until all financial obligations have been satisfied.

## Application for Diploma

Before applying for a diploma, students are required to have received an official evaluation (details on p . 171).

Students who expect to complete the requirements for a degree are responsible for filing an application for a diploma with Student Services, and for paying the appropriate fee (currently $\$ 25$ ). This may be done at the time of the final semester's registration or up to the following dates:

| D ecember graduation | O ctober 1 |
| :--- | :--- |
| M ay graduation | February 15 |
| August graduation | June 15 |

D ecember graduation
August graduation

0 ctober 1
February 15
June 15

Students whose applications for a diploma are received after the deadlines will be considered for receiving degrees at the next graduation. Students who do not complete degree requirements in the semester or term in which they first applied for graduation must complete a new application for diploma and pay the fee for the semester or term in which they will graduate.

A graduation ceremony is held in M ay each year. Students who completed degree requirements the previous August and D ecember, as well as those who complete their requirements that M ay, are invited to participate.

## RESPONSIBILITIES OF UMUC

U M U C considers the following goals in designing and reviewing the courses it offers. These goals are also considered in evaluating the acceptability of courses presented for transfer of credit from other institutions.

1. Presentation of material should conform to representations in official publications, announcements, and advertisements, or descriptions furnished to students before a course begins.
2. Students should be able to have regular contact with members of the faculty.
3. Students should participate in the process of learning.
4. Students should have opportunities to interact with one another.
5. Students are entitled to have their work evaluated on an individual basis by faculty members.

## Services to Students

## GENERAL INFORMATION AND ORIENTATION

At the beginning of each semester and summer trimester, UM UC holds open houses and orientations for new and prospective students. These events offer an opportunity to learn about UM UC and its programs; student services; academic, career, and self-improvement workshops; faculty members; and fellow students. New students can be admitted and register for courses at these times.

For general information, or to be directed to specific offices, students may call the Information and Enrollment Team at 301-985-7000. O ffices are open weekdays from 8:30 a.m. to 5 p.m.; the Information and Enrollment Team may be reached M onday through T hursday from 8:30 a.m. to 8 p.m., Friday from 8:30 a.m. to 6 p.m., and Saturday from 8 a.m. to 12 noon.

## TEAM-BASED SERVICES TO STUDENTS

Some services to students are provided by multiskilled teams. These services include admission, academic advising, career counseling, financial aid, and veterans benefits. Services for disabled students are provided through the Support Team.

## Prospective or New Students

The Information and Enrollment Team serves individuals who are inquiring about becoming UM UC students at some future time, are admitted but have not yet registered, have not attended UM UC for two or more years and need to be readmitted (at no charge), or have attended one of U M UC's overseas divisions.

Students should contact the Information and Enrollment Team at 301-985-7000 to find out about services available to help them get started.

## Enrolled Students

Students are assigned to a resource team when they enroll. Each team provides services at times and places convenient to the students it serves. To arrange a mutually convenient time to meet with a team counselor, students should call their resource teams between 8:30 a.m. and 5 p.m., M onday through Friday. The resource teams are as follows:

```
BASED AT COLLEGE PARK
(STUDENT AND FACULTY SERVICES CENTER)
    Rock Creek 301-985-7939
    Liberty 301-985-7960
    St. James 301-985-7662
    W ingate 301-985-7353
```

BASED AT ANNAPOLIS
Chesapeake 410-266-3774 or 301-261-8199

## based at shady grove

Potomac 301-738-6000

## based at waldorf

Patuxent 301-645-4303 or 301-870-6013

## based at andrews alr force base

Seneca 301-981-3123

## bASED AT FORT MEADE

Seneca 410-551-0431 or 301-621-9882
Students may check their team assignments by calling the Interactive Registration and Information System (IRIS) at 301-985-7499.

## ADVISING ASSISTANCE FROM ADMISSION TO GRADUATION

Each team provides prospective or enrolled students the information needed to plan an academic program. This assistance can include an evaluation of potential transfer credit, help with clarification of education and career goals, and aid in selecting appropriate courses.

## Initial Estimate of Transfer Credit

Prospective or newly admitted students can have a review of their potential transfer credit done by an Information and Enrollment Team counselor. This review is an estimate of the academic credit UM UC might accept toward a particular degree and of the requirements remaining to be fulfilled. (Sources of credit are described on p. 52.) This review is not binding on either the student or UM UC, and is subject to change.

## Evaluation of International Records

Students who are seeking an evaluation of potential transfer credit from international postsecondary educational institutions need to

- Be admitted and be seeking an undergraduate degree at UMUC.
- Send their official international transcripts to the international credit evaluation services selected by UM UC. (Forms are available on the World W ide Web at www.umuc.edu/sudserv/credeval. html or may be requested by calling 301-985-7000.)
- Pay fees associated with the international evaluation.
- H ave all official transcripts from any U.S. institution previously attended sent to U M UC .


## Official Evaluation for Degree-Seeking Students

Students who have completed 6 semester hours at UM UC, with a cumulative grade-point average (GPA) of 2.0 or better, are eligible to request an official evaluation of their transfer credit. For this evaluation, students need to submit official transcripts from all colleges and universities previously attended, including other institutions of the University System of $M$ aryland, whether or not transfer credit is requested or granted. UM UC may deny transfer credit from any institution not listed on the application for admission. Sources of transfer credit not listed at the time of admission or approved by a counselor after admission cannot be applied toward the U M UC degree.

An official evaluation

- Includes all transfer credits earned up to the date of the evaluation that may be applied to a UM UC degree program.
- Lists all courses completed at UM UC.
- Incorporates other types of academic credit.
- Indicates the amount and type of coursework still required for the degree being sought.

Students are responsible for submitting all pertinent academic documents (such as academic transcripts, confirmation of credit conferred by examination, or records of credit from military services schools). To be considered official, documents must be sent directly from the issuer to the following address:

Student Services
University of $M$ aryland University College
University Boulevard at Adelphi Road
College Park, M aryland 20742-1636
Students should apply for an official evaluation early in their program. No one may apply for graduation before receiving an official evaluation.

D egreeseeking students need to submit a written request to their resource team to attend other institutions. To ensure that credits from other institutions apply toward a U M U C degree, students need to obtain official permission through their resource team before enrolling elsewhere. Four weeks should be allowed for this request to be processed.

## OTHER SERVICES

## Bookstores

Textbooks and supplies are available at several bookstores convenient to the sites where classes meet. At some regional locations, either the textbooks themselves or order forms are available to facilitate purchases. Bookstores usually have updated lists of the books required for each course. The Undergraduate Schedule of Classes contains information about obtaining texts.

## C areer Services

Resource teams can suggest career decision-making strategies and resources, including hel pful Internet sites. O ther services and sources of information are described below.

## Academic Courses

CAPL 171 Personal Career Planning and Development ( 3 credits) covers the career-planning process, from the assessment of a student's skills, values, and interests to jobsearch techniques.

EDCP 108D Career D evelopment and Decision M aking (1 credit) helps students clarify their career goals by assessing their skills, values, and vocational interests; identifying career options; and using career-information resources.

## Career C enter

Information about career fields and suggestions for job-seekers are available on a self-service basis at the Student and Faculty Services Center in College Park. M aterials do not circulate. The number to call for information is 301-985-7000.

## Job Listings

Employment opportunities are posted at the UM UC Student Resource Center. Additional job listings are available through JO BT RAK, the nation's leading job listing service. The Web site is www.jobtrak.com. Students may access the site from a UM UC lab without a password. Resource teams will supply the password for current students' use from a computer not connected to UM UC.

## Career Seminars

Each semester a series of free seminars is presented at various U M U C locations throughout the Washington, D.C., metropolitan area. The schedule for the current semester is available on the UM UC Web site or from the resource teams.

## Disabled Students

Services for students with disabilities are available at UM UC. Students with disabilities who plan to enroll for classes must contact the technical director for Veteran and Disabled Student Services on the Support Team.

Students must register and request services each semester. Current (within three years) documentation of a student's disability is required and can include one or more of the following records: secondary school records, medical or psychological reports and diagnoses, aptitude and achievement results and evaluations, or other documentation considered appropriate by the Support Team. Students should call 301-985-7930 or 301-985-7466 (TTY) for more information. To allow for adequate planning, requests for services must be made four to six weeks before the first day of classes.

## Drug and Alcohol Awareness

As required by federal law, UM UC provides referral services for students with concerns about the use or abuse of alcohol and drugs. Students may discuss referrals with their resource team.

## INFORMATION AND LIBRARY SERVICES

The U M UC Information and Library Services office facilitates access to the vast array of library resources and materials available to students. The office promotes the use of library technology, coordinates courses in information technology, and distributes guides and other printed materials.

Services to students include direct borrowing privileges at all University System of M aryland (USM ) campus libraries; access to VICTO RWeb, the online catal og of the USM ; interlibrary loan services; access to library resources via the Internet; guides to area libraries; and reference librarians available at M CK eldin Library and at the Shady Grove Library to assist with research needs.

For information on library services, students may send an e-mail message to library@info.umuc.edu or call 301-985-7209. Students in M aryland, Virginia, and D elaware outside the local calling area may call 800-888-U M UC. Information and Library Services, located in the Student and Faculty Services Center, is open from 8:30 a.m. to 5 p.m. M onday through Friday. The library at the University System of $M$ aryland Shady Grove Center provides library services and assistance M onday through Saturday.

## D irect Borrowing Privileges

Currently enrolled students have borrowing privileges at the following libraries. To borrow materials, students must have a current validation sticker and bar code on their student identification cards.

Bowie State University
Coppin State C ollege
Frostburg State U niversity
M organ State University
Sali isbury State University
St. M ary's C ollege of M aryland
Towson University
University of Baltimore
University of $M$ aryland, Baltimore
University of M aryland, Baltimore County
University of $M$ aryland $C$ enter for Environmental Science
University of M aryland, College Park
University of M aryland Eastern Shore
University of $M$ aryland University College

## Library Resources

The U SM online catalog, VICTO RWeb, provides access to the System's books and to M dU SA, the U SM 's single interface to UM UC's databases offering journal citations, abstracts, and full-text articles. All USM libraries; UM UC centers at College Park, Shady Grove, Annapolis, and Waldorf; and other UM UC regional sites offer access to VICTO RWeb. VICTO RWeb is available through any Web browser or through WebTycho. The text-based version of VICTOR is avail lable through a Telnet connection.

Books reserved through VICTO RW eb can be picked up at any USM library, the Waldorf C enter, or the Annapolis Center. Students should already be registered in the library system to place a hold on books or access the journal databases. Students who are not recognized by the system should contact Information and Library Services at 301-985-7209 or by e-mail at library@info.umuc.edu.

An extensive array of online journal databases and national and international newspapers is available through the Library Services Web page at www.umuc.edu/library. The Web page offers access to 60 databases, many of which are full text, in the business, management, and computing areas.

## Library Instruction and Research Assistance

Students are often overwhelmed by or are unaware of the vastness of the resources- print, nonprint, and automatedavailable to them. Information and Library Services provides two sources of assistance: in-class instruction and individualized research assistance.

At the request of a faculty member, Information and Library Services can arrange for an in-class presentation to introduce students to relevant library resources. U M UC also offers two 1-credit courses to prepare students to perform courserelated library research and write in acceptable academic style: LIBS 100 Introduction to Library Research and

EN GL 106 Introduction to Research Writing. Subjects covered in the courses include selecting research topics, developing research skills, using sources, organizing material, and footnoting.

UM UC reference librarians are located in the M CK eldin Library at College Park and at the Shady Grove Library/ M edia C enter in Rockville. The reference librarians are available during established hours or by appointment to answer questions or provide one-to-one instruction to help students with their research needs. For more information, students may call Information and Library Services at 301-985-7209, the M CK eldin Library reference office at 301-405-9115, or the Shady G rove Library at 301-738-6020.

## TUTORING

Tutoring is available at College Park for mathematics and statistics courses. Tutoring is also available for writing (see Writing Resources, below). There is no charge for this service. A list of private tutors is available for some (but not all) academic disciplines. Students may call 301-985-7000 for general tutoring information.

## Writing resources

The Guide to Writing and Research is now required for use in all undergraduate courses where another such guide to writing and research is not already required. Students may purchase a print copy of the guide or use the new online guide accessible at http://tychousa.umuc.edu/writinggde/.

Free, in-person writing services are available to U M U C students at the University of M aryland, C ollege Park, Writing Center, located in room 0125 of Taliaferro H all on the C ollege Park campus. Students should call 301-405-3785 for information about hours and appointments.

An online writing center will begin operation in the spring 2000 semester.

## ALUMNI ASSOCIATION

The University of M aryland University College Alumni Association was established in 1990. The association's mission is to support current students and promote the excellence of UM UC.

All U M UC graduates are automatically enrolled as members of the Alumni Association. With a membership of more than 70,000 alumni, the association offers programs and services that are beneficial to both alumni and current students. In addition to funding scholarships for UM UC students, the association seeks to involve volunteers in supporting students and faculty. It provides benefits for alumni that include career development opportunities; educational, cultural, and recreational events; an affinity credit card; and other services. Students are invited to participate in many of these alumni activities.

All association members receive an alumni magazine, The Achiever, which highlights the accomplishments and successes of UM UC students and alumni. The Achiever also reports on UM UC's varied educational and cultural activities.

Additional information about the Alumni Association is available on the World Wide Web at www.umuc.edu/alum or from the Office of Alumni Relations, University of M aryland University College, University Boulevard at Adelphi Road, College Park, M D 20742-1608 (phone 301-985-7179). Student inquiries are particularly welcome.

## Financial Information

## TUITION AND FEES

All tuition and applicable fees must be paid in full at registration. H owever, students registering by phone via the Interactive Registration and Information System (IRIS) or online via the W orld W ide Web are granted a certain number of days for payment to be received. (If payment is not received by the specified deadline, the registration is canceled.) UM U C does not offer a deferred-payment plan or an installment-billing plan.

Payment may be made by cash, check, money order, or M asterC ard or VISA credit cards. Checks should be payable to University of M aryland University College. A student who might qualify for tuition assistance, financial aid, or veterans benefits should consult the appropriate sections that follow. The fees below were in effect at the time of publication, but are subject to change.

## Current Tuition

The following tuition rates are current as of the publication date. Changes are listed in each U ndergraduate Schedule of Classes. All amounts listed are per semester hour.

$$
\begin{array}{ll}
\text { Resident of M aryland* } & \$ 184 \\
\text { N onresident } & \$ 236
\end{array}
$$

## Fees <br> Application for Admission

All new students must pay a nonrefundable fee of $\$ 30$ when they apply for admission to U M U C. Students previously enrolled in a UM UC undergraduate program, either in the United States or in one of the overseas divisions of UM UC, are not required to pay this fee.

## Registration

## CHANGES IN REGISTRATION

Substituting one course for another (or one section of a course for another) costs $\$ 15$.

## LATE REGISTRATION

A fee of $\$ 30$ is charged for registering after the regular registration period.

## LABORATORY SCIENCE

A \$40 laboratory science fee is required for BIOL 105, CHEM 103, CHEM 113, CHEM 233, CHEM 243, MICB 200, M ICB 440, ZOOL 201, ZOOL 202, and ZOOL 211.

## Examinations to Establish Credit

The cost for each examination taken to obtain credit for a course (i.e., a course-challenge examination) is the regular tuition rate per semester hour of credit. (The various ways of earning college credit are described on pp. 51-54.)
Payment must accompany the application.

## Distance Education

There is a $\$ 5$ fee for voice-mail service.

## Vehicle Registration

Parking regulations differ at each site. Check the current U ndergraduate Schedule of Classes for information.

## Cooperative Education

Credit for Co-op is charged at the current tuition rate plus a $\$ 75$ administrative fee each time a student registers. If a student chooses to earn Co-op credit in a new position obtained through the Co-op Job D evelopment program, there is a $\$ 75$ charge for the required job development seminar.

## EXCEL Through Experiential Learning

Fees charged to participate in the EXCEL program vary. Prospective students may call 301-985-7755 for detailed information.

## Application for Graduation

An official evaluation of degree status ( p .171 ) must have been completed before a student may apply for a diploma. A nonrefundable fee of $\$ 25$ is due at the time of application.

## Transcripts

When requesting transcripts, the student must specify a full name, including maiden name or any other names under which records may be filed; Social Security number; date of birth; and dates and places of attendance. Each UM UC transcript that is issued costs $\$ 3$ (rush transcripts are available for $\$ 8$ each). Payment must accompany each signed request for a transcript. There is no charge for sending a transcript to another institution in the University System of M aryland. To obtain European and Asian Division transcripts by fax, students must pay a $\$ 15$ fee. Checks should be made payable to University of M aryland University College.

## Service C harge for D ishonored C hecks

For each check returned unpaid by the payer's bank (whether because of insufficient funds, stopped payment, postdating, or drawing against uncollected items), UM UC assesses a service charge of $\$ 25$ (over and above any service charges levied by the financial institution).

A student who stops payment on a check for tuition is thereby neither disenrolled nor relieved of responsibility for paying tuition and fees. Anyone whose checks for tuition or fees remain dishonored may be barred from classes.

[^8]
## Withdrawals and Refunds

A student who withdraws from a course before the first class meeting will receive a full tuition refund, less the withdrawal fee of $\$ 15$ per course. A student who withdraws after classes begin will be refunded a portion of the tuition, the amount to be determined by the date of the withdrawal. The schedule for partial refunds is given in the current Undergraduate Schedule of Classes

If the tuition for a student who withdraws was paid by employer contract or federal financial aid, the refund will be returned to the employer or the federal government. If the aid was a partial payment, the aid will be returned to the employer or the government, and excess payments will be refunded to the student.

No offer of financial aid is considered an active final award until the refund period has ended. Students who withdraw before the end of that period are liable for all costs incurred and will be billed accordingly.

## Indebtedness to the University

Students who incur debts to UM UC must clear them to be permitted to register. Requests for transcripts and diplomas will be denied until all debts have been paid. Outstanding debts will be collected against refunds due the student. After a reasonable period of time, uncollected debts will be forwarded to the C entral Collection Unit of the State Attorney G eneral's O ffice.

The Board of Regents has authorized U M UC to charge students' delinquent accounts for all collection costs incurred by UM UC. The normal collection fee is 17 percent plus attorney and/or court costs. D elinquent students will be reported to a credit bureau.

## EMPLOYER-PROVIDED TUITION ASSISTANCE

If an employer is going to pay for part or all of a student's tuition, at the time of registration the student must submit two copies of a document (purchase order, tuition assistance form, or contract on company letterhead) containing the following information:

- A specific description of types of fees and charges (such as tuition, application fee, late-registration fee, change-of-registration fee, or books) and the amount to be assumed by the employer.
- The student's name and Social Security number.
- The semester or term covered by the document.
- The billing address.
- The signature and telephone number of the authorizing official.

A student who does not have an authorizing document at the time of registration must pay the bill in full and arrange for direct reimbursement from the employer. UM UC cannot issue refunds for authorizing documents submitted after registration.

No credit will be granted for any fees unless specified. If specified in the authorizing document, the student may charge books and supplies for 15 days after the end of each registration period. After that time, the student must pay. The student must submit a separate copy of the authorizing document to the University Book C enter when charging books.

D ocuments that restrict payment or are in any way conditional will not be accepted. If the employer does not pay UM UC within 75 days of the date on the bill, the student is responsible for payment.

## FINANCIAL AID

Financial aid is money available to help students pay the costs of college. Aid is available for students who can prove financial need, academic merit, or both. Students are urged to research the various sources of aid through their employers and through the UM UC Student Services office.

U M UC attempts to assist all adult students, particularly those studying part time, who would otherwise be unable to afford a college education. Regardless of their income, all students are encouraged to apply for assistance; many financing alternatives are available.

UM U C students must apply for aid through U M UC, not through any other office or institution of the University System of $M$ aryland. (This can be a confusing point; please be clear in all correspondence.) Students must reapply for financial aid at each school attended.

## Completing the Forms

Students must complete the Free Application for Federal Student Aid (FAFSA) to qualify for any type of financial aid. There is no cost to the student to use this form. The FAFSA must be completed for a student to be considered for need-based $M$ aryland state scholarships. In addition, students must meet the $M$ aryland state scholarships' $M$ arch 1 application deadline to be considered for most state scholarship programs.

As the first step in the application process, the student (and the student's family, if applicable) must complete application forms. In addition to the FAFSA, U M UC requires comple tion of an institutional financial aid form.

Approximately four weeks after mailing the FAFSA, students will receive the Federal Pell Grant Student Aid Report (SAR). The SAR must be signed, dated, and forwarded to UM UC. In submitting the SAR, students must be sure to include all additional information requested and any necessary corrections. Student Services processes the additional information and corrections electronically to save time. Student Services will send a corrected Institutional Student Information Report (ISIR) to students whose information has been electronically corrected.

## Programs for Financial Aid

M ost aid programs are available to both full- and part-time students. UM UC offers several kinds of aid, including grants, scholarships, work, and loans. In most cases, at least half-time enrollment ( 6 semester hours) is required of the recipients. M ost institutional scholarships are open to students who register for as few as 3 semester hours.

Each applicant for financial aid must request an official evaluation from a counselor in the first period of enrollment and study at UM UC.

## Grants

Gift assistance, for which no repayment is required, is awarded by the federal government, the state of $M$ aryland, and UM UC. Student Services provides four types of gift assistance: Federal Pell Grants, Federal Supplemental Educational O pportunity Grants, UM U C scholarships and grants, and $M$ aryland state scholarships and grants. Students should contact their resource team for information about scholarships.

The Federal Pell Grant Program provides aid to students who demonstrate financial need. Awards range from $\$ 400$ to $\$ 2,400$ per academic year, depending on government funding levels.

## The Federal Supplemental Educational Opportunity

 Grant (SEOG) provides aid to students who demonstrate extraordinary financial need by means of eligibility for a Federal Pell Grant. The amount of each award is based on the student's degree of need and the level of federal funds allocated to the institution for the year. Awards are typically $\$ 125$ to $\$ 250$ each semester.The UM UC President's Grant provides aid to undergraduates who demonstrate financial need and are in good academic standing. Since funds are limited, students are urged to apply early. Awards (renewable) provide $\$ 1,000$ per academic year.

The M aryland State Scholarship programs provide financial assistance to M aryland residents based primarily on financial need. Senatorial and Delegate Scholarship awards are also based on criteria established by the elected official.

- High school seniors may qualify for the Guaranteed Access Grant if they meet specific criteria.
- Educational Assistance Grants are need-based and replaced the G eneral State Scholarship program.

M aryland Part-Time Grants are awarded to part-time students. Funds for these grants are allocated to state colleges on an annual basis and are administered by the institution. A student's eligibility for this program is based on financial need as determined by the institution.

The direct contact of UM UC students with elected state officials (senators or delegates) is essential to increasing the pool of state aid available to the adult population of the university.

## Employment Programs for Students

UM U C recognizes the importance of flexible, part-time employment opportunities for students who are in transition or who have financial need. Employment focuses on positions in the university setting; some community-service positions are available. The Student Services office coordinates information and publicity for the programs.

The Federal Work-Study Program provides part-time jobs to help students pay for college studies. The amount of each initial award is based on financial need and preset estimates. The final award is based on the nature of each job and its hourly pay scale, the student's financial need, and the availability of funds. It is adjusted at the time of placement in an appropriate position. Payment is calculated on an hourly basis. Checks are issued every two weeks.

## Loans

Students who receive loans for a college education are expected to repay the principal and interest according to a scheduled repayment plan.

The Federal Perkins Loan Program (formerly the National D irect Student Loan, or N D SL, Program) offers need-based, low-interest federal loans. The lender is UM UC. The amount of each loan depends on the student's financial need and the availability of funds. As much as $\$ 3,000$ per year, or $\$ 15,000$ for the entire undergraduate program, may be awarded. As long as the borrower is enrolled at least half-time ( 6 semester hours of credit per semester), no interest is charged nor is repayment required. Interest (currently at 5 percent) begins to be charged nine months after the borrower leaves school or when attendance drops below half-time ( 6 semester hours). The minimum monthly payment is typically $\$ 40$ plus interest, depending on the outstanding balance of the loan. The loan must be repaid within 10 years.

Federal W illiam D. Ford D irect Loans are low-interest loans made to students attending school at least half-time. Students may qualify for a subsidized Federal Direct Loan, which is based on financial need. Students can also obtain
an unsubsidized Federal Direct Loan regardless of needthat is, regardless of their personal or family income. It is possible for a student to have a Federal Direct Loan based only in part on financial need.

The federal government pays the interest on a need-based Federal Direct Loan (subsidized) while the recipient is in school or in deferment. These types of loans are called subsidized student loans because the federal government pays the interest and, therefore, subsidizes or supports these loans. Students with a non-need-based Federal Direct Loan (unsubsidized) are responsible for the interest during in-school and deferment periods.

Independent undergraduates may borrow up to

- $\$ 6,625$ as a first-year student in a program of study (at least $\$ 4,000$ of this amount must be in unsubsidized Federal Direct Loans),
- \$7,500 after completing the first year of study (at least $\$ 4,000$ of this amount must be in unsubsidized Federal Direct Loans), and
- $\$ 10,500$ a year after completing two years of study (at least \$4,000 of this amount must be in unsubsidized Federal Direct Loans).

D ependent undergraduate students may borrow up to

- $\$ 2,625$ as a first-year student,
- \$3,500 after completing the first year of study, and
- $\$ 5,500$ after completing two years of study and having reached junior level.

Graduate students may borrow \$18,500 a year (at least $\$ 10,000$ of this amount must be in unsubsidized Federal Direct Loans).

The interest rate on the Federal Direct Loan (both subsidized and unsubsidized) is variable, with a ceiling of 8.25 percent. Interest rates are set each June. T he organization holding the Ioan will notify the student of interest rate changes.

## The Federal Parent Loan for Undergraduate Students

(Federal PLUS) enables parents with good credit histories to borrow for each dependent student enrolled at least halftime. The yearly loan limit is the cost of education minus any estimated financial aid for which the student is eligible. For PLU S loans first disbursed on or after July 1, 1994, the interest rate is variable but will not exceed 9 percent. Interest rates are set each June. M ore information on this loan program is available from resource teams. N ote: All information about federal programs is subject to change.

## General Eligibility Requirements Eligibility for Need-Based Assistance

Eligible applicants for U M UC need-based assistance must be

- Admitted to UM UC as degree seeking students.
- U.S. citizens or classified as eligible noncitizens (i.e., permanent residents).
- Enrolled at least half-time as defined by UM UC for undergraduate or graduate students. Some federal programs and merit-based scholarships and other institutional awards require enrollment for only 3 credits. (Credit earned by examination, audited courses, and some repeated courses cannot be counted.)
- D emonstrating satisfactory academic progress toward a degree according to UM UC financial aid guidelines.
- Registered with the Selective Service, if required to do so.
- In good financial standing at all colleges and universities previously attended, not in default on any loan (or having borrowed in excess of loan limits), or not owing a refund on any grant under Title IV federal student aid programs.

Students who have attended some other postsecondary school or schools (even if the student received no financial aid there) must arrange for the previous institution(s) to send a financial aid transcript to U M UC's Student Services office. No application for financial aid at UM UC will be processed until the transcripts are received.

## Eligibility for Federal Financial Aid

To apply for or to continue to receive federal financial aid (Federal Pell G rant, Federal SEO G, Federal Work-Study, Federal Perkins Loan, Federal Direct Loan, or Federal PLUS), a student must demonstrate satisfactory academic progress. "Satisfactory academic progress" encompasses two measures of academic progress: completion rate and gradepoint average (GPA).

To demonstrate a satisfactory grade-point average, a student is required to maintain a 2.0 grade-point average.

To maintain a satisfactory completion rate, the student must complete a percentage of credits attempted. Percentages differ depending on the student's status. (M ore information can be acquired from Student Services.) Credits completed are credits for courses in which the student received a passing grade of $A, B, C, D, S$, or $P$.

O nly one repetition of a course completed with an unsatisfactory grade (F, I, or W ) will be allowed for students receiving financial aid. No federal financial aid will be awarded for courses taken with the grading method of audit (AU).

Students receiving financial aid may take no more than 18 semester hours with the grading method of pass/fail. To take courses on a pass/fail basis, students are required to fulfill the pass/fail requirements detailed on p . 164. Recipients
of financial aid must take the rest of their credits with the standard grading method.

At the beginning of each award period, Student Services reviews the records of all students who are receiving federal financial aid. Reviewers examine each student's completion rate and grade point average to determine whether the student is making satisfactory academic progress. (Satisfactory academic progress is detailed in Appendix G.) Further require ments for qual ifying to receive financial aid (and to continue receiving it) are specifically outlined in the application kit, which is available from Student Services. Additional informa tion is typically sent to award recipients during each enrollment period.

## Cancellation of Financial Aid

Students who fail to maintain the standards for receiving financial assistance will be sent a written warning. UM UC allows students one semester of grace to come into compliance with the academic-progress requirements listed in the previous section. Students who fail to do so by the end of the probationary semester will have all of their federal financial aid suspended. No further aid will be awarded until the student reestablishes a record of satisfactory progress or successfully completes at least 12 semester hours at his or her own expense.

In cases of unsatisfactory academic progress caused by extraordinary circumstances beyond the student's control, the student may appeal in writing to the Financial Aid Appeals Board for a waiver. D ocumentation explaining the reason(s) for the lack of progress should be included. The technical director, Financial Aid, will notify the student and the student's counsel or of the board's decision.

If they meet all the other requirements, readmitted students who were denied funding because of lack of satisfactory academic progress will be eligible for automatic reinstatement of financial aid after three years of not being enrolled.

## Application Deadlines

The most important aspect of financial aid is to apply for assistance as early as possible. The application deadlines listed on this page are the dates for high-priority consideration in the most desirable assistance programs. Students who meet these deadlines will also enjoy the security of having their award authorizations ready for registration. Students who do not meet these deadlines cannot expect to receive financial aid in time for registration. H owever, students who apply late may receive aid retroactively, depending on their eligibility and the availability of funds.

Late applications are processed continually, so students are encouraged to follow through. Eligibility for both loans and grants can be authorized even after the enrollment period has begun.

The application process takes at least 10 weeks. Students who wish their applications for financial aid to receive high priority, and who want their eligibility to be determined early enough that funds can be reserved by registration, should meet the deadlines on the following chart:

| Enrollment Period | Priority D eadline for <br> Being Applied for |
| :--- | :--- |
| Filing Financial Aid Forms |  |

Academic year (for M aryland State Scholarships) M arch 1
Academic year or fall semester
only (for other financial aid) June 1

| Spring semester only | N ovember 1 |
| :--- | :--- |
| Summer trimester | April 1 |

## For Further Information

Information and applications are available from Student Services. Students can obtain a current financial aid kit by contacting their resource team.


## VETERANS BENEFITS

The following is a summary of the educational assistance that the U.S. D epartment of Veterans Affairs makes available to activeduty military personnel, veterans, and their dependents who are attending U M UC:

- The Veterans Educational Assistance Program (VEAP) (Chapter 32) may extend benefits to active-duty personnel and veterans who enlisted in the military after January 1, 1977. Eligible applicants who contributed to an educational fund have their contributions matched at the rate of two dollars for each dollar. (Eligibility to enroll in VEAP ended on M arch 31, 1987.)
- The M ontgomery GI Bill (Chapter 30) assists students who entered active duty for the first time after July 1, 1985, and agree to have their pay reduced $\$ 100$ for 12 months. Veterans must have been honorably discharged; active duty personnel must have served at least two years.
- Certain veterans and activeduty military personnel who were eligible for educational assistance under the GI Bill (C hapter 34) on D ecember 31, 1989, may become eligible for benefits under the M ontgomery GI Bill if they meet specific criteria (available from Student Services) and have some unused entitlement. Other veterans who were voluntarily or involuntarily separated, and who elected to participate in Chapter 30, may be eligible. Certain VEAP participants who elected to participate in Chapter 30 may also be eligible.
- Vocational Rehabilitation (Chapter 31) provides assistance to veterans who have a service-connected disability of at least 20 percent and need vocational rehabilitation.
- The provisions of Survivors and Dependents (Chapter 35) award educational benefits to spouses and children of veterans who either died while in service, died as a result of a service-connected disability, or became totally and permanently disabled as a result of their military service.
- Besides Chapter 35, the Restored Entitlement Program for Survivors (REPS) also assists dependents. Eligibility for educational benefits under this program is limited to unmarried full-time students between the ages of 18 and 22 whose parent died while on active duty prior to August 13, 1981, or as a result of a service-connected disability incurred prior to August 13, 1981.
- Educational assistance through the provisions of Selected Reserves (C hapter 106) may be available to students who have a six-year obligation in the Selected Reserves that was signed after June 30, 1985. Students who are officers must agree to serve an additional six years beyond their current obligation.
- Benefits awarded under the D epartment of D efense Educational Assistance Test Program (Sections 901 and 903) are available to veterans whom the department chose for participation from among those who enlisted between N ovember 30, 1980, and September 30, 1981.


## Application Procedures

Students who are (or who think they may be) eligible for educational benefits from the U.S. D epartment of Veterans Affairs should contact their resource team each semester to complete necessary paperwork. Every educational-assistance program requires different paperwork and documentation to process a claim. After the paperwork has been received by the resource team, the student will be certified to the U.S. D epartment of Veterans Affairs. The U.S. D epartment of Veterans Affairs processes claims and issues payment four to six weeks after receiving completed paperwork.

## Amounts and Methods of Payment

The amount of money a student may receive from the U.S. D epartment of Veterans Affairs depends on which assistance program the student is eligible for, how many semester hours of credit the student is registered for, how long the semester is, and how many dependents the student has. Applicants should contact their resource team for detailed information.

Benefits are paid directly to students. The money may be used to help with tuition, books, or other costs of college education.

Anyone who plans to be a half-time student and who did not receive benefits the previous semester may be eligible to apply for advance payment. Advance payment will cover the first fractional or full month and the following month of a student's enrollment. A check is mailed to UM UC before classes begin. H owever, since the advance check may not arrive in time for registration, the student is directly responsible for immediate tuition costs. There is no provision for delayed or deferred payment.

The benefits that are paid for accelerated courses differ from those granted for other types of courses. Benefits may be paid to students enrolled in C O-op courses if specific criteria are met.

## Evaluation of Prior Training

W hen a student files a claim for educational benefits, the U.S. D epartment of Veterans Affairs requires previous training to be evaluated so that the student receives correct transfer credit. (Types of training that qualify are listed on p. 52; these include military training and service schools, postsecondary education, certain correspondence courses, and credit by examination.) Each student must have an evaluation completed during the first semester. Students who do not comply may find their future benefits delayed. After their first registration, eligible students will be provided with information on the necessary procedure.

## Students' Responsibilities

Students receiving benefits are expected to follow all regulations and procedures of the U.S. D epartment of Veterans Affairs while attending UM UC.

At UM UC, all regulations of the U.S. Department of Veterans Affairs are enforced. Students should be aware of the following requirements and consequences:

- Each student is expected to make satiffactory progress toward a degree; everyone must comply with the academic standards of U M UC.
- Each student must report all changes in enrollmentincluding drops, adds, withdrawals, changes to audit, and changes in degree objective.
- Registering for a course and then not attending, or ceasing to attend without officially withdrawing, is a misuse of federal funds that is punishable by law.
- Payment of benefits will be disallowed for any course in which a nonpunitive grade is assigned. N onpunitive grades are I (Incomplete) and AU (Audit).
- Payment of benefits will be disallowed for repeating a course for which transfer credit has been granted or for which a passing grade of $A, B, C, D$, or $P$ was assigned.
- Payment of benefits will be disallowed for any course that is not a requirement in a student's degree program.


## Tutorial Assistance

Veterans, active-duty military personnel, and reservists receiving funding assistance from the U.S. D epartment of Veterans Affairs may qualify for tutorial assistance. Students enrolled at least half-time may qualify. Payments will be allowed when students demonstrate deficiency in courses that are required for their degree programs.

## Work-Study Allowance

Students who are registered at least threequarters time (9 semester hours of credit) and who need money to attend school may participate in work-study. Recipients of benefits under the provisions of Chapters 30,31,32,35, and 106 may be eligible. Students may work up to 400 hours during a semester and will receive either the federal minimum wage or the state minimum wage, whichever is greater.

## For Further Information

Information and applications are available from Student Services. The mailing address is

Student Services
University of M aryland University College
University Boulevard at Adelphi Road
College Park, M D 20742-1634


## Graduate Programs

## INTRODUCTION

U M UC offers eight master's degree programs through the Graduate School of M anagement \& Technology. Established in 1978 to prepare business, industry, government, and not-for-profit-sector midlevel managers, the school now has more than 3,700 students. Faculty members are distinguished by their extensive professional managerial experience as well as by their advanced education and teaching ability. All degree programs except the $M$ aster of Business Administration (M .B.A.) consist of 36-39 semester hours of graduate study; the M .B.A. requires 42 semester hours.

## PROGRAMS

The following eight degree programs are offered:

1. $M$ aster of Science in $M$ anagement
with nine optional tracks and one executive program:

- Accounting*
- Financial management*
- H ealth care administration*
- Human resource management*
- Interdisciplinary studies in management*
- M anagement information systems*
- M arketing*
- N ot-for-profit management*
- Procurement and contract management*
- Executive M aster of Science in $M$ anagement

2. M aster of Science in Computer Systems M anagement with four optional tracks and one executive program:

- Applied computer systems
- D atabase systems and security*
- Information resources management*
- Software development management*
- Executive Program in Information Technology

3. M aster of Science in Environmental M anagement*
4. $M$ aster of International $M$ anagement with three optional tracks and one executive program:

- International commerce*
- International finance*
- International marketing*
- Executive M aster of International $M$ anagement

5. M aster of Software Engineering* (joint program with University of $M$ aryland, College Park)
6. M aster of Science in Technology $M$ anagement with three optional tracks and one executive program:

- General program*
- Biotechnology management
- Technology systems management
- Executive M aster of Science in Technology $M$ anagement

7. M aster of Science in Telecommunications M anagement* with one executive program:

- Executive Program in Information Technology

8. M aster of Business Administration
(delivered only online)

## LOCATIONS

```
Aberdeen, M D
Annapolis, M D
Baltimore, M D
Catonsville, M D
College Park, M D
Frederick, M D
Patuxent River, M D
Rockville, M D
Waldorf, M D
Washington, DC
```


## COLLOQUIUM SERIES

The Graduate School sponsors a colloquium series that brings prominent scholars and business and government leaders to lecture on current research and major issues of concern to the public.

## INFORMATION

For further information about any of the programs described above, or to request an application for admission, prospective students may call 301-985-4617 locally. From outside the local calling area in M aryland, Virginia, and Delaware, the toll-free number is $800-888-U M \cup C$, ext. 4617. The fax number is 301-985-4611. Written inquiries should be sent to

[^9]
## Professional D evelopment

## NATIONAL LEADERSHIP INSTITUTE

The N ational Leadership Institute (N LI) offers a wide range of programs and services designed to help managers and executives become more effective as leaders in their organizations and to help organizations enhance their overall leadership effectiveness. The programs and services listed below are offered to individuals on an open enrollment basis and to organizations on a contractual basis.

## Center for C reative Leadership Programs

N LI conducts the Leadership D evelopment Program and Foundations of Leadership in affiliation with the C enter for Creative Leadership, the preeminent education and research institution devoted to the development of creative leadership and effective management.

## Leadership D evelopment Program (LD P)

This internationally acclaimed, intensive week-long program helps mid- to senior-level executives and managers assess their leadership styles and increase their effectiveness as leaders of their organizations. Highlights of the LDP include comprehensive leadership assessment, high-performance team building, one-to-one feedback and coaching, action planning, and follow-up activities.

## Foundations of Leadership (FOL)

FOL is a three day program designed to help managers with three to five years of experience begin developing leadership skills and perspectives. It focuses on the role of the manager and offers an approach to management based on commitment rather than control.

## Customized Leadership Programs

N LI designs training programs and consulting services to meet an organization's unique leadership development needs. M ost customized programs include the most current leadership concepts, feedback based on assessment of leadership behavior, one-to-one coaching with staff psychologists, experiential learning, development planning and goal setting, and follow-up activities.

## Executive Coaching and Counseling

Highly individualized coaching and counseling sessions offer an excellent opportunity for personal and professional growth. Especially suitable for senior managers, these programs address such issues as succession planning, career development strategies, and managerial effectiveness.

## Leadership Application Workshops

These practical and experiential workshops provide participants the opportunity to apply the principles and practices of effective leadership. W orkshops are conducted on topics such as

- High-performance teaming
- Leading with vision
- Creating life balance
- M anaging organizational transitions
- Women's advancement in the workplace


## head start resource and training center

The H ead Start Resource and Training Center (H SRTC) provides training and technical assistance to H ead Start programs in federal region III, which includes the D istrict of Columbia, M aryland, Virginia, West Virginia, Delaware, and Pennsylvania. The Region III Q uality Improvement Center at UM UC serves $H$ ead Start service areas that cover program management, governance, child development, health, family and community partnerships, automation, and facilities. Resources provided to clients include technical assistance, on-site support, conferences, workshops, seminars, resource packets, a resource lending library, and telephone support. A guide to the resource lending library and a list of conferences and workshops are available. H SRTC also operates an Early H ead Start program in collaboration with other service providers. Further information may be acquired by calling 301-985-7990.

## PROFESSIONAL AND WORKFORCE DEVELOPMENT

The Professional and Workforce D evelopment office provides educational and training programs and services to individuals and organizations. O rganizations have used Professional and W orkforce D evelopment to be their primary training service or to augment existing programs. D rawing upon resources of the university, professional, corporate, and governmental communities, Professional and Workforce D evelopment identifies ongoing and emerging needs and then develops and delivers timely, high-quality, university-level programs to meet those needs.

M any programs are conducted at the UM UC Inn and C onference Center, conveniently located in College Park, M aryland. Training programs may also be held at another location convenient to the client.

Professional and Workforce D evelopment may be reached via its World W ide W eb site at www.umuc.edu/prog/wkforce/ inst.html, via e-mail at pdit@polaris.umuc.edu for all IT pro-
grams and at UM U C-at-W ORK @nova.umuc.edu for all other programs, and by phone at 301-985-7644.

## M anagement D evelopment

Professional and Workforce D evelopment develops and conducts customized training programs on a contract basis.
Consultation is available to assist organizations in developing their own in-house training programs in the following areas:

- Accounting and financial management
- Customer service management
- Business writing
- Public speaking/Speech writing
- Project management
- Knowledge management
- Strategic planning and forecasting
- Performance improvement management
- Sales and marketing management
- Environmental management


## Information Technology

Professional and Workforce D evelopment also provides a range of information technology (IT) certification programs for adults who are seeking to advance their IT workplace expertise. Programs are offered in Rockville, M aryland, and Washingon, D.C., or can be customized and delivered onsite at an organization. Certification programs offered through UM UC include

- M icrosoft Certified Systems Engineer (M CSE)* (Linked to the undergraduate specialization in computer information technology)
- M icrosoft Certified Solution D eveloper (M CSD)*
- A+*
- Network Plus
- Lotus N otes
- Certified Novell Engineer
- Oracle

O ther technical training programs that can be customized and delivered on-site at an organization include

- Visual Basic*
- Capability M aturity M odel
- Java
- C/C+
- UNIX


## Specialized Professional Seminars

The Professional and Workforce D evelopment office offers training seminars designed especially for professionals in accounting, finance, and information systems. The one, two-, and five-day seminars enable individuals to focus on the most up-to-date issues and technologies relevant to the workplace. Seminars are held throughout the year; many of them offer continuing professional education (CPE) credits or continuing education units (CEUs).

## Test Preparation Workshops

Professional and Workforce D evelopment offers test preparation workshops for the LSAT, GM AT, and GRE. These workshops help participants learn critical test-taking techniques and strategies, reduce test anxiety, and gain hands-on experience through practice testing. Skills gained are applicable to both computer-based and pen-and-ink tests.

## Tax Institute

Professional and Workforce D evelopment sponsors the Annual M aryland Federal and State Tax Institute to update, clarify, and explain federal and state income tax require ments. Specialists from the D elaware-Baltimore District of the Internal Revenue Service and from the Revenue Administration Division of the $M$ aryland State Comptroller's O ffice conduct the sessions at five sites throughout the state.

## Environmental M anagement Programs

Through the Institute for Environmental M anagement, Professional and Workforce D evelopment offers courses in the following topic areas:

- Environmental management
- H ealth and safety management
- Emergency management
- Sustainable development

In addition, the Institute for Environmental M anagement offers the following certificate programs:

- Certified hazardous materials management
- Health and safety management
- Emergency management
- Multimedia environmental compliance
- Environmental management
- Resource conservation and sustainable development

Additional program information may be acquired by calling 301-985-7644 or, from outside the Washington, D.C., metropolitan area, 800-444-6853.

M ore information on the Institute for Environmental M anagement may be found on p .185.

## NUCLEAR SCIENCE AND ENGINEERING PROGRAM

UM UC provides a specialization for the B.S., at nuclear plant sites nationwide, in nuclear science and engineering. For more information, prospective students may call 301-985-7881 or, from outside the W ashington, D .C ., metropolitan area, 800-444-6853.

[^10]
## Other Supporting Programs

## CENTER FOR TEACHING, LEARNING, AND ASSESSMENT

U M UC's Center for Teaching, Learning, and Assessment (CTLA) provides faculty members professional development opportunities and works to enhance teaching effectiveness. CTLA coordinates all faculty development and training within UM UC stateside, both for Undergraduate Programs and the Graduate School of M anagement \& Technology. It also assists in the support of faculty teaching in the overseas divisions.

CTLA provides a rich variety of programs designed to improve and assess teaching proficiency and to reward faculty accomplishments. Among the programs are an annual series of faculty development workshops, faculty training and certification in distance technologies, comprehensive peer mentoring for faculty, grants for teaching innovation and attendance at professional conferences, the Stanley J. D razek Teaching Excellence Award, development of assessment tools for evaluating student learning outcomes, administration and management of student course evaluations, and administration of faculty surveys. The center also publishes online and print materials on teaching-related themes, including a journal (Faculty Focus) and a newsletter (Faculty Reporter), and oversees an electronic discussion group that allows worldwide UM UC faculty to exchange views on teaching issues.

Each semester, CTLA hosts orientations for new faculty members and plans themes for the undergraduate general faculty meetings. It maintains a faculty resource library containing articles and books on effective teaching, and makes administrators available to faculty members for individual consultation regarding teaching strategies and concerns. The center also collaborates with other UM UC service units such as the $O$ ffice of Distance Education and Lifelong Learning and the 0 ffice of Information and Library Services.

## OFFICE OF DISTANCE EDUCATION AND LIFELONG LEARNING

The Office of Distance Education and Lifelong Learning (ODELL) provides research and development activities for the UM UC virtual university. Toward this end, ODELL works with the academic units, the global outreach offices, the O ffice of Information and Library Services, and the European and Asian Divisions to establish UM UC as a world renowned virtual university.

OD ELL initiates research projects that aim to enhance UM U C's knowledge about teaching and learning in the distance and lifelong learning environment. Improved policies and practices for effective delivery of distance education are derived from these projects. ODELL also creates and develops innovative practices, such as World W ide Web courses and other online education products, to enhance the distance learning experience.

Further information about ODELL can be obtained by calling 301-985-7777.

ODELL comprises four units, as described in the following paragraphs.

## Center for Intellectual Property and Technology Transfer

 TheCenter for Intellectual Property and Technology Transfer serves as a clearinghouse on intellectual property issues for UM UC and outside clients. As such, it researches and explores issues related to the copyright and ownership of educational materials, techniques, and products, particularly within the online environment. The center disseminates information on the relevant issues and laws concerning intellectual property ownership both through its own W orld W ide Web page (www.umuc.edu/distance/cip) and by frequent presentations, both online and on-site, for UM UC staff and other interested distance educators. It also maintains a distribution center from which distance learning students can purchase or rent various print and electronic materials such as course guides, lab kits, or instructional videos.
## Center for the Virtual University

The Center for the Virtual University provides instructional media and programming to support courseware enhancements, most notably in the World W ide W eb environment. It maintains a fully operational video production studio and manages the transmission of numerous U M UC courses via two local cable television stations. The center also administers the Institute for Distance Education, whose mandate is to expand external awareness of University System of M aryland distance education efforts through a variety of seminars, workshops, and publications contemplating current practices in distance learning.

## Center for Educational Technology

The Center for Educational Technology facilitates the delivery of the latest and most effective distance education technologies by conducting research in computer-aided learning programs and applications, as well as testing and evaluating new courseware and software. Its technology demonstration laboratory promotes and facilitates the use of new instructional applications.

## Institute for Research and Assessment in Higher Education

 Through the completion and analysis of various research studies, the Institute for Research and Assessment in Higher Education (IRAHE) generates knowledge that leads to improvements in higher education for adults. Its research programs allow U M UC and partner institutions, as well as other interested institutions, to achieve immediate enhancements through the implementation and evaluation of new practices. Information on IRAH E research programs can be obtained by visiting its Web page at www.umuc.edu/irahe or by calling 301-985-7031.
## INSTITUTE FOR ENVIRONMENTAL MANAGEMENT

The Institute for Environmental M anagement provides educational services in the field of environmental management to individuals and corporations, and to federal, state, and local governments. It contributes to the exchange of knowledge in this field by conducting short courses and workshops and by publishing proceedings and a newsletter. The institute provides guidance to organizations on regulatory compliance requirements, works with government and the private sector to help them resolve environmental issues and improve technology transfer, and works with organizations to build the leadership competencies needed to respond to the expanding demand for environmental services. Further information may be obtained from the director of the Institute for Environmental M anagement at 301-985-7200 or by e-mail at rbeaucha@nova.umuc.edu.

## INSTITUTE FOR GLOBAL MANAGEMENT

The Institute for Global M anagement provides research and training on topics central to the management of interna tional enterprises. The institute offers customized seminars and consulting services, and carries out applied research on topics that prepare managers for the effective conduct of international business. Its priorities include leadership development in transnational organizations; technology management, particularly the information systems of transnational corporations; and corporate responsibility, with special emphasis on global environmental issues, technology transfer concerns, and localization of management. Further information may be obtained from the director of the institute via e-mail at Clarence_M ann@ admin.umuc.edu or by calling 301-985-7200.

## ARTS PROGRAM

The UM UC Arts Program collects, preserves, and exhibits works of art for the benefit of the general public. The permanent collection, established in 1978, is composed primarily of works by M aryland artists. It is the largest collection in the state devoted to M aryland artists. The holdings also include a significant body of work by the Japanese artist Yoshitoshi M ori and other foreign artists, thereby reflecting UM U C's extensive international involvement. The collection as a whole contains more than 250 paintings, sculptures, prints, and photographs, and is viewed by the more than 100,000 individuals who pass through the Inn and C onference Center each year.

Another integral part of the Arts Program is its series of temporary exhibitions, which are mounted at the Inn and C onference Center as well as at the UM UC Annapolis C enter. These exhibitions highlight the achievement of M aryland artists. In conjunction with the exhibitions, the Arts Program produces a video series, ArTalks, which is broadcast on public cable television.

Group tours of the permanent collection and changing exhibitions can be arranged by contacting the Arts Program office at 301-985-7822.

## 0 verseas Programs

UM UC has been providing educational programs around the world under contract to the D epartment of D efense since 1949. Administered through the university's European and Asian Divisions, by 1995 courses were being delivered to students on seven continents.

These programs in Europe and Asia are available only to members of the U.S. armed forces, to civilian employees of the U.S. federal government, and to ther immediate families stationed in the overseas theaters near class locations. D uring the 1990s, however, UM UC expanded beyond these government-contracted offerings to establish a program overseas for a wider, global audience. In Germany, UM UC now maintains a traditional, residential campus with an international student body. Students earn a UM UC bachelor's degree upon successful completion of ther studies.

## SCHWÄBISCH GMÜND CAMPUS

In 1992, after more than 40 years of conducting programs at military bases around the world, U M UC established a new residential campus in Europe that is open to qualified students from all countries. In the charming surroundings of Schwäbisch G münd, a small town in the southern German state of Baden-W ürttemberg, students can experience a highly qualified faculty, stimulating class sessions, a small-college environment, and personalized attention. The program at Schwäbisch G münd offers an educational experience that promotes the balanced development of both intellectual and social skills.

A well-rounded course of study leads to either the Bachelor of Arts or the Bachelor of Science degree. Students first enroll in a rigorous core of general education courses. After completing the freshman and sophomore requirements, students may choose to specialize in one of 12 fields: business and management, computer studies, English, European studies, German language and literature, German studies, government and politics, history, international business management, international management studies, international relations, or psychology. Another option is the Study Abroad experience, which enables students to attend the Schwäbisch G münd campus for a semester or an academic year.

In providing students with the best of two worlds-a U.S. education at an accredited institution as well as study in Europe- UM UC takes advantage of its central location to introduce students to European cultural opportunities. Special academic and cultural seminars and study tours are regularly offered. C ourses and tours are conducted not only in Germany but in other European countries as well. In addition, students can participate in a variety of extracurricular activities, including drama, the campus newspaper, a literary magazine, the photo club, and special interest
groups. Students also have access to the extensive athletic facilities of the town of Schwäbisch G münd, which include aikido, basketball, boxing, fencing, soccer, and swimming. Tennis courts, basketball courts, pool tables, and other facilities are available on campus.

The undergraduate program at Schwäbisch G münd has been designed to enrich students' intellectual lives, prepare them for careers, and enhance the contributions they may make to other people and to society. M ore information and application forms are available from the 0 verseas Programs office at C ollege Park or the Schwäbisch G münd campus.

## Administration

W illard M artin, Dean
United States
D arla R. W iest-C ooper, Assistant D irector, Admissions
ADDRESS
$O$ verseas Programs
University of M aryland University College
University Boulevard at Adelphi Road
College Park, M D 20742-1642
TELEPHONE
301-985-7070
fax
301-985-7075
E-MAIL
sginfo@polaris.umuc.edu
Germany
ADDRESS
0 ffice of Admissions
University of M aryland University College
Universitätspark
73525 Schwäbisch G münd
Germany
telephone
011-49-7171-18070
fax
011-49-7171-180732
E-MAIL
enroll@admin.sg.umuc.edu
web page
www.umuc.edu/internat/germany.html

## EUROPEAN DIVISION

Eligibility to enroll in UM UC European Division courses is governed by contractual obligations to the D epartment of D efense. Inquiries about eligibility should be directed to the UM UC European Division headquarters in Heidelberg or to the campus in M annheim, Germany.

## H istory

Just after World War II, encouraged by the success of programs for college credit at the Pentagon and at military installations in M aryland, officials of the armed forces proposed establishing a similar program in Europe. In O ctober 1949, after university officials had confirmed the need for and evaluated the feasibility of such a program, the first classes were held.

O nly 600 persons were expected to register, but for the first term 1,850 students enrolled. Classes were held at six Armed Forces Education Centers in Germany: Berlin, Frankfurt, H eidelberg, M unich, Nuremberg, and W iesbaden.
In the European Division today, more than 30,000 students register each year. UM UC offers courses at about 100 centers in approximately 20 countries throughout Europe and the M iddle East.

At most locations, the European Division offers five eightweek terms each year, on the following schedule:

- August-O ctober
- O ctober-D ecember
- January-M arch
- M arch-M ay
- June-July

A semester-based program for full-time students at the $M$ annheim campus serves freshman and sophomore family members of U.S. military and government civilian personnel stationed in Europe.

## Undergraduate Courses

The courses of study in the European D ivision lead to certificates and to associate's and bachelor's degrees. C ourses are offered in anthropology, area studies, art, art history, behavioral and social sciences, business and management, communication studies, computer studies, criminal justice/ criminology, economics, education, English language and literature, foreign languages (D utch, French, G erman, modern Greek, Italian, Portuguese, Russian, Spanish, and Turkish), government and politics, history, humanities, management, mathematics and statistics, music, philosophy, psychology, science (astronomy, biology, botany, chemistry, geology, physics, and zoology), sociology, speech, and theatre. Programs leading to certificates are offered in accounting, computer studies, foreign language area studies, management, and women's studies.

## Career and Technical Courses

C ourses of study leading to letters of recognition, certificates, and Associate of Applied Science degrees are offered through the UM U C European Division by Charles County Community College and M ontgomery College. Charles C ounty offers letters of recognition for child care provider, clerical assistant, and legal office assistant; certificates in early childhood development, electronics technology, and office technology; and associate's degrees in early childhood development, electronics technology, emergency medical services, and paralegal studies. M ontgomery C ollege offers certificates in automotive driveability specialist, fire science, and food and beverage management, and associate's degrees in automotive technology, criminal justice, fire science, and hospitality management.

## Graduate C ourses

C ourses of study leading to master's degrees are offered through the UM U C European Division by Bowie State University (BSU ) and University of M aryland, C ollege Park (UMCP). BSU offers the M aster of Arts in administrative management (with a concentration in public administration) and the M aster of Science in management information systems. UM CP offers the M aster of Education and M aster of Arts in counseling and personnel services.

## C ooperation with Military Education Offices

The European D ivision benefits from the support of military education offices. Through these offices, the armed services provide classroom space and library facilities. Professional educators are employed by the $D$ epartment of $D$ efense as education service officers and counselors.

## Earning Credit Toward D egrees

UM UC credit earned in the European Division is considered UM UC resident credit. Students may either pursue studies leading to degrees at UM U C or transfer the credits they have earned to other institutions (subject to the regulations of those other institutions).

## Administration

Paula A. H arbecke, Vice President and D irector European Division

## Heidelberg

## ADDRESSES

- From overseas U .S. military installations or from the United States:

University of $M$ aryland University College
Unit 29216
APO AE 09102

- International (civilian from outside the United States): University of M aryland University C ollege
Im Bosseldorn 30
69126 H eidelberg
Germany
telephones
- M ilitary

DSN : 370-6762/7157

- Civilian

06221-3780 (within Germany)
+49-6221-3780 (outside Germany)
fAX
06221-378300 (within G ermany) +49-6221-378300 (outside Germany)
E-MAIL
student_svc@admin.ed.umuc.edu
web page
www.ed.umuc.edu

## Mannheim Campus

M ary Fiedler, Resident Dean
The UM UC M annheim campus is a full-time residential college open to all members of the U.S. armed forces, American employees of the U.S. government and their family members, and former and retired U.S. military personnel who reside in Europe. The campus, which is part of the European Division, offers a freshman and sophomore program of studies leading to the Associate of Arts degree. Specializations may be chosen from mathematics and science, business and management, fine arts and humanities, and social and behavioral sciences, as well as preprofessional fields. Students may earn an Associate of Arts degree in general curriculum, business and management, management studies, or German studies.

The location of the $M$ annheim campus in the heart of Europe offers unique cultural opportunities. Students are encouraged to participate in the integrated European studies program, a special program of field trips, visits to museums and theatres, and educational tours developed to integrate contemporary European issues and events into the classroom and campus activities. Extracurricular activities include a wide range of sporting and recreational events, literary and writing projects, and art workshops. Students are involved in dramatic produc-
tions and numerous clubs related to various interests. Federal financial aid and scholarships are available.
A $M$ annheim campus video is available upon request.

## addresses

- From overseas U.S. military installations or from the United States:

University of $M$ aryland University College
M annheim Campus
Unit 24560
APO AE 09183

- International (civilian from outside the United States):

University of $M$ aryland University College
G ebäude 485
Grenadier Strasse 4
68167 M annheim
Germany

## TELEPHONES

- M ilitary

D SN : 380-4877/4878/4879/4880

- Civilian

0621-3374-0 (within Germany) +49-621-3374-0 (outside Germany)
fax
0621-3374-103 (within Germany)
+49-621-3374-103 (outside Germany)
E-MAIL
admissions@admin.mc.umuc.edu
web PAGE
www.ed.umuc.edu/campus/mannheim


## London Office

Theresa Jonke, Associate Area D irector
United Kingdom/Atlantic
The London office coordinates classes and other educational activities at locations in the U nited Kingdom and I celand.

## ADDRESSES

- From overseas U.S. military installations or from the United States:

University of M aryland University College
European Division
United Kingdom Office
PSC 821, Box 99
FPO AE 09421-0010

- International (civilian from outside the United States):

University of M aryland University College
Box 99
RAF West Ruislip
Ickenham Road
Ruislip HA4 7DW
England
telephones

- M ilitary

DSN: 235-5481/5482

- Civilian

020-8-868-9638/7689 (within the United Kingdom) $+44-20-8-868-9638 / 7689$ (outside the U nited Kingdom) fax $+44-20-8-868-7637$
E-MAIL
uk-iceland@admin.ed.umuc.edu

## Catalogs

Requests for European D ivision undergraduate and graduate catalogs should be sent to University of M aryland University College, Unit 29216, APO AE 09102. Requests for the M annheim campus catalog should be directed to the UM UC M annheim Campus, Unit 24560, APO AE 09183. These catalogs may also be obtained from the Assistant to the President for $O$ verseas Programs, University of M aryland University College, College Park, M D 20742-1642.

## Locations

C enters where UM UC offers courses vary from term to term, as necessitated by military policy and other factors governing the movement of military personnel. The following locations may have one or more education centers sponsoring classes offered through UM UC.
AUSTRIA
U.S. Embassy, Vienna
BAHRAIN
M anama
BELGIUM
Brussels
Kleine Brogel
SH APE

## BOSNIA

Demi
Dobol
M cG overn
Tuzla M ain
Tuzla West
EGYPT
Cairo Sinai

HUNGARY
Kaposvar Air Field
Taszar
ICELAND
K eflavik
italy
Aviano
Gaeta
Ghedi
La M addalena
Livorno
$N$ aples
Sigonella
U.S. Embassy, Rome

Verona
Vicenza
KUWAIT
Kuwait City
MACEDONIA
Skopje
netherlands
AFCENT
PORTUGAL
Lajes
Lisbon
RUSSIA
U.S. Embassy, M oscow

SAUDI ARABIA
Riyadh
SPAIN
Rota
turkey
Incirlik
Izmir
UNITED KINGDOM
Alconbury
Croughton
Fairford
H arrogate
Lakenheath
London
Mildenhall
M olesworth
St. M awgan

## ASIAN DIVISION

Eligibility to enroll in Asian Division courses is governed by contractual obligations to the D epartment of D efense. Inquiries concerning eligibility should be directed to the UM UC Asian Division headquarters in Yokota, Japan.

## H istory

Following the dramatic growth of its programs in Europe, the university was asked to extend the same program to U.S. military and civilian personnel stationed in Asia and the Pacific. W hen the program began in September 1956, there were 82 classes offered at 42 centers, and the enrollment was 1,820 .

The first centers were located in Japan, O kinawa, and K orea. $O$ ver the years, classes have also been offered in Australia, Diego Garcia, Guam, H ong K ong, Laos, M alaysia, M arshall Islands, M idway Island, N ew Zealand, Philippines, Singapore, Taiwan, T hailand, and Vietnam. The far-flung division now averages about 9,000 students each year, with classes at more than 50 sites in 10 countries and territories. Its distance education program serves students at additional remote locations as far away as Antarctica.T he U M UC Asian Division operates on an eight-week term, with five terms each year.

The administrative offices of the Asian Division are at Yokota Air Base, located on the outskirts of Tokyo, Japan.

## Undergraduate Courses

The courses of study available through the Asian Division lead primarily to the associate's and bachelor's degrees. Courses are offered in anthropology, Asian studies, business and management, computer studies, economics, education, English, foreign languages (Chinese, Japanese, K orean, and Spanish),
geography, government and politics, history, mathematics and statistics, philosophy, psychology, science (astronomy, biology, botany, geology, oceanography, physics, and zoology), sociology, and speech and theatre. Special-topics courses supplement the curriculum. The Asian D ivision offers certificates in accounting, computer studies, management, Japanese studies, and K orean studies.

## Graduate Study

The College of Education and the Graduate School of University of M aryland, College Park cooperate with the UM UC Asian Division in offering a graduate program in counseling and personnel services. This program, which is available only on O kinawa, leads to the M.Ed. or M .A. degree. Students enrolled in the master's program must meet the same entrance requirements as those enrolled in graduate work at University of M aryland, College Park.

## Cooperation with Military Education 0 ffices

The programs of the Asian Division are conducted in cooperation with the education offices of the armed services. M ilitary education centers provide assistance with registration and other services that are essential on U.S. installations in Asia.

## Earning Credit Toward Undergraduate D egrees

UM UC credit earned in the Asian Division is considered UM UC resident credit. Students may either pursue studies leading to degrees at UM U C or transfer the credits they have earned to other institutions (subject to the regulations of those other institutions).

## Administration

Joseph J. Arden, Vice President and D irector Asian Division

## Yokota

ADDRESSES

- From overseas U.S. military installations or from the United States:

University of $M$ aryland University C ollege
Asian Division
Unit 5060, Box 0100
APO AP 96328-0100

- International (civilian from outside the United States): University of M aryland University College
Asian Division
Building 526, Yokota Air Base
Fussa, Fussa-shi
Tokyo (197-8502) Japan
telephones
- M ilitary

D SN : 225-3680/81/82/83/84

- Civilian

From the continental United States:
011-81-3117-55-3680/81/82/83/84
From elsewhere:
81-42-522-2511, ext. 5-3680/81/82/83/84
fax

- M ilitary

D SN : 225-8485

- Civilian

From the continental U nited States:
011-81-425-51-8305
From elsewhere:
81-425-51-8305
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sservices@ad.umuc.edu
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## Japan 0 ffice

Bernard T. Franck, Director Japan
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University of M aryland University College
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Building 3000, Yokota Air Base
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## telephones

- Military

DSN : 225-3690

- Civilian

From the continental United States:
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81-42-552-2511, ext. 5-3690
E-MAIL
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University of M aryland University College Yongsan Education Center
Unit 15556, Box 0614
APO AP 96205-0614

- International (civilian from outside the U nited States):

University of $M$ aryland University C ollege Yongsan Army Post
Building 2212, Room 206
Seoul (140-022) K orea

## telephones

- Military or United States

D SN: 723-7141/42/43

- Civilian

From the continental United States:
011-82-2-7913-7141
From elsewhere:
82-2-7913-7141
fax
82-2-797-8843
D SN: 723-4087
E-MAIL
okorea@ad.umuc.edu


## Okinawa Office

Allan J. Berg, Director
Okinawa
ADDRESSES

- From overseas U .S. military installations or from the United States:

University of M aryland University College
Kadena Education Center
18th M SS/D PE
Unit 5134, Box 40
APO AP 96368-5134

- International (civilian from outside the United States):

University of $M$ aryland University College
Education Center
K adena Air Base
Building 721, Room 101
K adena-cho O kinawa-shi,
O kinawa-ken (904) Japan

## telephones

- Military

DSN : 634-0400/0458

- Civilian

From the continental United States:
011-81-6117-34-0400, ext.0454
From elsewhere:
81-98-938-1111, ext. 0400
FAX
81-98-939-5429
E-MAIL
ookinawa@ad.umuc.edu

## Guam Office

Jay D. D obbin, Program C oordinator M icronesia
address
University of M aryland University College
PSC 455, Box 152
FPO AP 96540-1000
telephones

- M ilitary

DSN : 564-2304

- Civilian

671-564-2304
E-MAIL
guam@ad.umuc.ed

## Catalogs

An Asian Division catalog may be obtained by writing to the UM UC Asian Division, Unit 5060, Box 0100, APO AP 96328, or to the Assistant to the President for $O$ verseas Programs, University of M aryland University C ollege, University Boulevard at Adelphi Road, C ollege Park, M D 20742-1642.

## Locations

C enters where U M U C offers courses vary from term to term, as necessitated by military policy and other factors governing the movement of military personnel. Classes may currently be offered at the following centers in Asia and the Pacific.

| Antarctic | Camp Schwab |
| :---: | :---: |
| M cM urdo Station* | Futenma |
| AUSTRALIA | K adena |
| Alice Springs | K adena N avy |
| W oomera | Torii Station |
| CENTRAL JAPAN | SINGAPORE |
| Atsugi | 497th Combat Training |
| Camp Fuji | Squadron |
| I wakuni | SOUTH KOREA |
| M isawa | Camp Carroll |
| Sasebo | Camp Casey East |
| Tokyo (Sanno H otel) | Camp Casey West |
| Yokohama | Camp Colbern |
| Yokosuka | C amp G arry 0 wen |
| Yokota | C amp Greaves |
| Zama | Camp Henry |
| GUAM | Camp Hialeah |
| Andersen | Camp H ovey |
| Covington | Camp H owze |
| $N$ aval Activities | Camp Humphreys |
| $N$ aval H ospital | Camp Long |
| N C T A M S | Camp Page |
| HONG KONG | Camp Red Cloud |
| U.S. Consulate G eneral* | C amp Stanley |
| MARSHALL ISLANDS | Camp Stanton |
| Kwajalein | Cheju Do |
| Roi N amur | Chinhae |
| new zealand | K-16 |
| Christchurch* | Kunsan |
| OKINAWA | O san |
| Camp Butler | Pilsong R ange |
| Camp Courtney | Suwon |
| Camp H ansen | Yongsan |
| Camp K inser | THAILAND |
| C amp Lester | JUSM AGT/U.S.Embassy |

## PROFESSIONAL DEVELOPMENT PROGRAMS INTERNATIONAL

U M U C 's Professional D evelopment Programs (PD P) International provides traditional and distance graduate education opportunities in association with organizations and agencies working with international schools, overseas schools, and professional educators' associations. Teachers, counselors, and administrators can enroll in PDP International courses and workshops as part of a master's degree in education or for professional development, career transitions, promotion, re certification, and step increases.

## Administration

Joseph B. Shapiro, Director
W illiam E. Byxbee, Executive D irector

United States
ADDRESS
PDP International
$O$ verseas Programs
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University Boulevard at Adelphi Road
College Park, MD 20742-1644
telephone
301-985-7070
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Lisa Romano, Counselor

## Resource Team (Western Region): Potomac

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Louise Berns, Counsedor
Lisa C ovell, Assistant Coordinator
Lori D ougherty, Counsel or
James H artsock, Assistant Director
C athy Silvestri, Counsel or

## Administrative Centers

U M UC Annapolis Center
190 Admiral Cochrane D rive, Suite 120
Annapolis, MD 21401
410-266-3774
301-261-8199 (local from metropolitan W ashington, D.C., area)

USM Shady Grove Center
9640 Gudelsky D rive
Rockville, M D 20850
301-738-6000

## CCCC-UMUC Waldorf Center

3261 Old Washington Road
Waldorf, M D 20602
301-645-4303
301-870-6013 (local from metropolitan Washington, D.C., area)

## Locations

Listed below are the locations throughout M aryland and in the Washington, D.C., metropolitan area where classes are held.

## Anne Arundel County

UM UC Annapolis C enter
Anne Arundel Community College
Fort M eade
Glen Burnie Town Center

## Baltimore City

D owntown Baltimore C enter

## Carroll County

Carroll Community College

## Charles C ounty

CCCC-UM UC Waldorf Center

## Frederick County

Fort D etrick
Frederick Community College
Frostburg State University C enter at Frederick

## Harford County

Aberdeen Proving Ground
Higher Education \& Applied Technology (H.E.A.T.) C enter

## H oward County

Howard Community C ollege
H oward High School

## M ontgomery County

USM Shady G rove C enter

## Prince Georgés C ounty

Andrews Air Force Base
Prince George's Community College
UM UC Inn and Conference Center
University of M aryland, College Park

## St. Marys County

Patuxent River $N$ aval Air Warfare Center
Southern M aryland Higher Education Center

## Washington County

Frostburg State University C enter at H agerstown
H agerstown Community College
District of Columbia and Virginia
Bolling Air Force Base
Fort Belvoir
Quantico M arine Corps Base
U.S. D epartment of Justice
U.S. Department of Labor

Walter Reed Army M edical Center

## Appendices

## APPENDIX A

## Policy of the University System of M aryland for Student Residency Classification for Admission, Tuition, and C harge-D ifferential Purposes

I. Policy

It is the policy of the Board of Regents of the University System of M aryland to recognize the categories of in-state and out-of-state students for purposes of admission, tuition, and charge differentials at those constituent institutions where such differentiation has been established. The student is responsible for providing the information necessary to etablish eligibility for in-state resident status.
Students who are financially independent or financially dependent, as defined herein, shall have their residency classification determined on the basis of permanent residency, which for purposes of this policy shall be determined by the criteria set forth in I.A. through E. below. A student will be assigned in-state status for admission, tuition, and charge differential purposes only if the student or (in the case of a financially dependent student) the student's parent, guardian, or spouse fulfills all of the following:
A. For at least 12 consecutive months immediately prior to and including the last date available to register for courses in the semester/term for which the petition applies, the student or (if the student is financially dependent) the parent, guardian, or spouse must

1. Own and continuously occupy or rent and continuously occupy living quarters in M aryland. There must exist a genuine deed or lease in the individual's name reflecting payments/rents and terms typical of those in the community at the time executed. Persons not having such a lease may submit an affidavit reflecting payments/rents and terms as well as the name and address of the person to whom payments are made, which may be considered as meeting this condition. As an alternative to ownership or rental of living quarters in $M$ aryland, a student may share living quarters in M aryland that are owned or rented and occupied by a parent, legal guardian, or spouse;
2. M aintain within $M$ aryland substantially all personal property;
3. Pay M aryland income taxes on all earned taxable income, including all taxable income earned outside the state;
4. Receive no public assistance from a state other than the state of $M$ aryland or from a city, county, or municipal agency other than one in M aryland; and
5. H ave a legal ability under federal and $M$ aryland law to reside permanently in M aryland without interruption.
B. For at least 11 consecutive months immediately prior to and including the last date available to register for courses in the semester for which the application applies, the student or (if the student is financially dependent) the parent, guardian, or spouse must
6. Register all owned motor vehicles in $M$ aryland; and
7. Obtain a valid driver's license issued by the state of M aryland, if licensed to drive in any other jurisdiction.
C. W ithin the 12 consecutive months immediately prior to and including the last date available to register for courses in the semester for which the application applies, the student or (if the student is financially dependent) the parent, guardian, or spouse must register to vote in M aryland, if registered in any other jurisdiction.
D. A financially independent student classified as in-state loses that status at such time as the student no longer meets one or more of the criteria set forth in I.A.-C. A financially dependent student classified as in-state loses that status at such time as the parent, guardian, or spouse on whom the status was based no longer meets one or more of those criteria.
E. In addition, persons in the following categories shall be accorded the benefits of in-state status for the period in which any of the following conditions apply:
8. A full-time or part-time (at least 50-percent time) regular employee of the University System of $M$ aryland.
9. The spouse or dependent child of a full-time or part-time (at least 50 -percent time) regular employee of the University System of $M$ aryland.
10. A full-time, active member of the armed forces of the United States whose home of residence is M aryland or who resides or is stationed in M aryland, or the spouse or a financially dependent child of such a person.
11. For UMUC, a full-time, active member of the armed forces of the United States on active duty, or the spouse of a member of the armed forces of the U nited States on active duty.
12. A graduate assistant appointed through the University System of M aryland for the semester/term of the appointment. Except through prior arrangement, sta tus is applicable only for enrollment at the institution awarding the assistantship.
F. Students not entitled to in-state status under the pre ceding paragraphs shall be assigned out-of-state status for admission, tuition, and chargedifferential purposes.

## II. Procedures

A. An initial determination of in-state status will be made by the university at the time a student's application for admission is under consideration. The determination made at that time, and any determination made thereafter, shall prevail for each semester/term until the determination is successfully challenged in a timely manner.
B. A change in residency status must be requested by submitting a University System of $M$ aryland "Petition for Change in Residency Classification for Admission, Tuition, and Charge Differential." A student applying for a change to in-state status must furnish all required documentation with the petition by the last published date to register for the forthcoming semester/term for which a residency classification is sought.
C. The student shall notify the institution in writing within 15 days of any change of circumstances that may alter in-state status.
D. In the event incomplete, false, or misleading informa tion is presented, the institution may, at its discretion, revoke in-state status and take other disciplinary actions provided for by the institution's policy. If in-state status is gained due to false or misleading information, the university reserves the right to retroactively assess all out-of-state charges for each semester/term affected.
E. Each institution of the University System of M aryland shall develop and publish additional procedures to implement this policy. Procedures shall provide that on request the president or designee has the authority to waive any residency criterion as set forth in Section I, if it is determined that application of the criterion cre ates an unjust result. These procedures shall be filed with the O ffice of the Chancellor.
III. Definitions
A. Financially D ependent: For purposes of this policy, a financially dependent student is one who is claimed as a dependent for tax purposes or who receives more than onehalf of his or her support from a parent, legal guardian, or spouse during the 12-month period immediately prior to the last published date for registration for the semester or session. If a student receives more than one-half of his or her support in the aggre gate from a parent and/or legal guardian and/or spouse, the student shall be considered financially dependent on the person providing the greater amount of support. The dependent relationship must have formally existed by legally contracted marriage or court order recognized under the laws of the state of $M$ aryland for at least 12 consecutive months immediately prior to and including the last date available to register for courses in the semester/term for which the petition applies.
B. Financially Independent: A financially independent student is one who (1) declares himself or herself to be financially independent as defined herein; (2) does not appear as a dependent on the federal or state income tax return of any other person; (3) receives less than one-half of his or her support from any other person or persons; and (4) demonstrates that he or she provides through self-generated support onehalf or more of his or her total expenses.
C. Parent: A parent may be a natural parent or, if established by a court order recognized under the laws of the state of $M$ aryland, an adoptive parent.
D. Guardian: A guardian is a person so appointed by a court order recognized under the laws of the state of M aryland.
E. Spouse: A spouse is a partner in a legally contracted marriage as recognized under the laws of the state of $M$ aryland.
F. Self-G enerated: T his term describes income that is derived solely from compensation for an individual's own efforts as evidenced, for example, by a federal or state W -2 form or IRS Form 1099 where interest income is based upon finances created from one's own efforts. For the purposes of this policy, grants, stipends, awards, benefits, loans, and gifts (including federal and state aid, grants, and loans) may not be used as self-generated income.
G. Regular Employee: A regular employee is a person employed by the University System of M aryland who is assigned to a state budget line. Examples of cate gories not considered regular employees are graduate assistants, contingent employees, if-and-when-needed employees, and temporary employees.

## APPENDIX B

## Policies of the M aryland Higher Education Commission on Academic Regulations, General Education Requirements, and Transfer of Undergraduates from Public Institutions in M aryland

I. Scope and Applicability

This chapter applies only to public institutions of higher education.
II. D efinitions
A. In this chapter, the following terms have the meanings indicated.
B. Terms D efined

1. "A.A. degree" means the Associate of Arts degree.
2. "A.A.S. degree" means the Associate of Applied Sciences degree.
3. "Arts" means courses that examine aesthetics and the development of the aesthetic form and explore the relationship between theory and practice. C ourses in this area may include fine arts, performing and studio arts, appreciation of the arts, and history of the arts.
4. "A.S. degree" means the Associate of Sciences degree.
5. "Biological and physical sciences" means courses that examine living systems and the physical universe. They introduce students to the variety of methods used to collect, interpret, and apply scientific data, and to an understanding of the relationship between scientific theory and application.
6. "English composition courses" means courses that provide students with communication knowledge and skills appropriate to various writing situations, including intellectual inquiry and academic research.
7. "General education" means the foundation of the higher education curriculum providing a coherent intellectual experience for all students.
8. "General education program" means a program that is designed to introduce undergraduates to the fundamental knowledge, skills, and values that are essential to the study of academic disciplines, to
encourage the pursuit of lifelong learning, and to foster the development of educated members of the community and the world.
9. "H umanities" means courses that examine the values and cultural heritage that establish the framework for inquiry into the meaning of life. Courses in the humanities may include the language, history, literature, and philosophy of Western and other cultures.
10. "M athematics" means courses that provide students with numerical, analytical, statistical, and problem-solving skills.
11. "N ative student" means a student whose initial college enrollment was at a given institution of higher education and who has not transferred to another institution of higher education since that initial enrollment.
12. "Parallel program" means the program of study or courses at one institution of higher education that has comparable objectives as those at another higher education institution, for example, a transfer program in psychology in a community college is definable as a parallel program to a baccalaureate psychology program at a four-year institution of higher education.
13. "Receiving institution" means the institution of higher education at which a transfer student currently desires to enroll.
14. "Recommended transfer program" means a planned program of courses, both general education and courses in the major, taken at a community college, that is applicable to a baccalaureate program at a receiving institution - and ordinarily the first two years of the baccal aureate degree.
15. "Sending institution" means the institution of higher education of most recent previous enrollment by a transfer student at which transferable academic credit was earned.
16. "Social and behavioral sciences" means courses that examine the psychology of individuals and the ways in which individuals, groups, or segments of society behave, function, and influence one another. The courses include, but are not limited to, subjects that focus on history and cultural diversity; concepts of groups, work, and political systems; applications of qualitative and quantitative data to social issues; and interdependence of individuals, society, and the physical environment.
17. "Transfer student" means a student entering an institution for the first time having successfully completed a minimum of 12 semester hours at another institution that are applicable for credit at the institution the student is entering.

## III. Admission of Transfer Students to Public Institutions

A. Admission to Institutions

1. A student attending a public institution who has completed an A.A., A.A.S., or A.S. degree, or who has completed 56 or more semester hours of credit, shall not be denied direct transfer to another public institution if the student attained a cumulative grade-point average of at least 2.0 on a 4.0 scale or its equivalent in parallel courses, except as provided in subsection 4 below.
2. A student attending a public institution who has not completed an A.A., A.A.S., or A.S. degree, or who has completed fewer than 56 semester hours of credit, shall be eligible to transfer to a public institution regardless of the number of credits earned if the student satisfied the admission criteria of that receiving public institution as a high school senior and attained at least a cumulative gradepoint average of 2.0 on a 4.0 scale or its equivalent in parallel courses.
3. A student attending a public institution who did not satisfy the admission criteria of a receiving public institution as a high school senior, but who has earned sufficient credits at a public institution to be classified by the receiving public institution as a sophomore, shall meet the stated admission criteria developed and published by the receiving public institution for transfer.
4. If the number of students seeking admission exceeds the number that can be accommodated at a receiving public institution, admission decisions shall be based on criteria developed and published by the receiving public institution and made to provide fair and equal treatment for native and transfer students.

## B. Admission to Programs

1. A receiving public institution may require higher performance standards for admission to some programs if the standards and criteria for admission to the program are developed and published by the receiving public institution and maintain fair and equal treatment for native and transfer students.
2. If the number of students seeking admission exceeds the number that can be accommodated in a particular professional or specialized program, admission decisions shall be based on criteria developed and published by the receiving public institution and made to provide fair and equal treatment for native and transfer students.
3. Courses taken at a public institution as part of a recommended transfer program leading toward a baccalaureate degree shall be applicable to related programs at a receiving public institution granting the baccalaureate degree.
C. Receiving Institution Program Responsibility
4. The faculty of a receiving public institution shall be responsible for development and determination of the program requirements in major fields of study for a baccalaureate degree, including courses in the major field of study taken in the lower division.
5. A receiving public institution may set program requirements in major fields of study that simultaneously fulfill general education requirements.
6. A receiving public institution, in developing lowerdivision coursework, shall exchange information with other public institutions to facilitate the transfer of credits into its programs.
IV. General Education Requirements for Public Institutions
A. W hile public institutions have the autonomy to design their general education program to meet their unique needs and mission, that program shall conform to the definitions and common standards in this chapter. A public institution shall satisfy the general education requirement by
7. Requiring each program leading to the A.A. or A.S. degree to include no less than 30 and no more than 36 semester hours, and each baccalaureate degree program to include no less than 40 and no more than 46 semester hours of required core courses, with the core requiring, at a minimum, coursework in each of the following five areas:
A. Arts and humanities,
B. Social and behavioral sciences,
C. Biological and physical sciences,
D. M athematics, and
E. English composition
or
8. Conforming with COM AR $13 B \cdot 02 \cdot 02 \cdot 16 \mathrm{D}(2)(\mathrm{b})$-(c).
B. Each core course used to satisfy the distribution requirements of A.1. of this regulation shall carry at least 3 semester hours.
C. General education programs of public institutions shall require at least
9. O ne course in each of two disciplines in arts and humanities;
10. O ne course in each of two disciplines in social and behavioral sciences;
11. Two science courses, at least one of which shall be a laboratory course;
12. O ne course in mathematics at or above the level of college algebra; and
13. O ne course in English composition.
D. Interdisciplinary and Emerging Issues
14. In addition to the five required areas in A. of this regulation, a public institution may include up to 8 semester hours in a sixth category that addresses emerging issues that institutions have identified as essential to a full program of general education for their students. These courses may
a. Be integrated into other general education courses or be presented as separate courses; and b. Include courses that
(i) Provide an interdisciplinary examination of issues across the five areas; or
(ii) Address other categories of knowledge, skills, and values that lie outside of the five areas.
15. Public institutions may not include the courses in this section in a general education program unless they provide academic content and rigor equivalent to the areas in A.1. of this regulation.
E. General education programs leading to the A.A.S. degree shall include at least 20 semester hours from the same course list designated by the sending institution for the A.A. and A.S. degrees. The A.A.S. degree shall include at least one 3 -semester-hour course from each of the five areas listed in A.1. of this regulation.
F. A course in a discipline listed in more than one of the areas of general education may be applied only to one area of general education.
G. A public institution may allow a speech communication or foreign language course to be part of the arts and humanities category.
H. Composition and literature courses may be placed in the arts and humanities area if literature is included as part of the content of the course.
I. Public institutions may not include physical education skills courses as part of the general education requirements.
J. General education courses shall reflect current scholarship in the discipline and provide reference to theoretical frameworks and methods of inquiry appropriate to academic disciplines.
K. C ourses that are theoretical may include applications, but all applications courses shall include theoretical components if they are to be included as meeting general education requirements.
L. Public institutions may incorporate knowledge and skills involving the use of quantitative data, effective writing, information retrieval, and information literacy when possible in the general education program.
M .N otwithstanding A.1. of this regulation, a public four-year institution may require 48 semester hours of required core courses if courses upon which the institution's curriculum is based carry 4 semester hours.
$N$. Public institutions shall develop systems to ensure that courses approved for inclusion on the list of general education courses are designed and assessed to comply with the requirements of this chapter.

## V. Transfer of General Education Credit

A. A student transferring to one public institution from another public institution shall receive general education credit for work completed at the student's sending institution as provided by this chapter.
B. A completed general education program shall transfer without further review or approval by the receiving institution and without the need for a course-bycourse match.
C. C ourses that are defined as general education by one institution shall transfer as general education even if the receiving institution does not have that specific course or has not designated that course as general education.
D. The receiving institution shall give lower-division general education credits to a transferring student who has taken any part of the lower-division general education credits described in regulation IV. of this chapter at a public institution for any general education courses successfully completed at the sending institution.
E. Except as provided in regulation IV.M. of this chapter, a receiving institution may not require a transfer student who has completed the requisite number of general education credits at any public college or university to take, as a condition of graduation, more than 10-16 additional semester hours of general education and specific courses required of all students at the receiving institution, with the total number not to exceed 46 semester hours. This provision does not relieve students of the obligation to complete specific academic program requirements or course prerequisites required by a receiving institution.
F. A sending institution shall designate on or with the student transcript those courses that have met its general education requirements, as well as indicate whether the student has completed the general education program.

## G.A.A.S. Degrees

1. W hile there may be variance in the numbers of hours of general education required for A.A., A.S., and A.A.S. degrees at a given institution, the courses identified as meeting general education requirements for all degrees shall come from the same general education course list and exclude technical or career courses.
2. An A.A.S. student who transfers into a receiving institution with fewer than the total number of general education credits designated by the receiving institution shall complete the difference in credits according to the distribution as designated by the receiving institution. Except as provided in regula tion IV.M . of this chapter, the total general education credits for baccalaureate-degree granting public receiving institutions may not exceed 46 semester hours.
H . Student Responsibilities
A student is held
3. Accountable for the loss of credits that
a. Result from changes in the student's selection of the major program of study,
b. Were earned for remedial coursework, or
c. Exceed the total course credits accepted in transfer as allowed by this chapter.
4. Responsible for meeting all requirements of the academic program of the receiving institution.

## VI. Transfer of Nongeneral Education Program Credit

A. Transfer to Another Public Institution

1. Credit earned at any public institution in the state is transferable to any other public institution if the
a. Credit is from a college or university-parallel course or program,
b. Grades in the block of courses transferred average 2.0 or higher, and
c. Acceptance of the credit is consistent with the policies of the receiving institution governing native students following the same program.
2. If a native student's "D" grade in a specific course is acceptable in a program, then a "D " earned by a transfer student in the same course at a sending institution is also acceptable in the program. C onversely, if a native student is required to earn a grade of " C " or better in a required course, the transfer student shall al so be required to earn a grade of "C" or better to meet the same requirement.
B. Credit earned in or transferred from a community college is limited to
3. Onehalf the baccalaureate degree program require ment but no more than 70 semester hours, and
4. The first two years of the undergraduate education experience.
C. N ontraditional Credit
5. The assignment of credit for AP, CLEP, or other nationally recognized standardized examination scores presented by transfer students is determined according to the same standards that apply to native students in the receiving institution, and the assignment shall be consistent with the state minimum requirements.
6. Transfer of credit from the following areas shall be consistent with COM AR 13B.02.02. and shall be evaluated by the receiving institution on a course-by-course basis:
a. Technical courses from career programs,
b. C ourse credit awarded through articulation agreements with other segments or agencies,
c. Credit awarded for clinical practice or cooperative education experiences, and
d. Credit awarded for life and work experiences.
7. The basis for the awarding of the credit shall be indicated on the student's transcript by the receiving institution.
8. The receiving institution shall inform a transfer student of the procedures for validation of course work for which there is no clear equivalency. Examples of validation procedures include ACE recommendations, portfolio assessment, credit through challenge examinations, and satisfactory completion of the next course in sequence in the academic area.
9. The receiving baccalaureate-degree-granting institution shall use validation procedures when a transferring student successfully completes a course at the lower-division level that the re ceiving institution offers at the upper-division level. The validated credits earned for the course shall be substituted for the upper-division course.
D. Program Articulation
10. Recommended transfer programs shall be developed through consultation between the sending and receiving institutions. A recommended transfer program represents an agreement between the two institutions that allows students aspiring to the baccalaureate degree to plan their programs. These programs constitute freshman/sophomorelevel coursework to be taken at the community college in fulfillment of the receiving institution's lower-division coursework requirement.
11. Recommended transfer programs in effect at the time that this regulation takes effect, which conform to this chapter, may be retained.

## VII. Academic Success and General Well-Being of Transfer Students

A. Sending Institutions

1. C ommunity colleges shall encourage their students to complete the associate's degree or to complete 56 hours in a recommended transfer program that includes both general education courses and courses applicable toward the program at the receiving institution.
2. Community college students are encouraged to choose as early as possible the institution and program into which they expect to transfer.
3. The sending institution shall
a. Provide to community college students information about the specific transferability of courses at four-year colleges.
b. Transmit information about transfer students who are capable of honors work or independent study to the receiving institution.
c. Promptly supply the receiving institution with all the required documents if the student has met all financial and other obligations of the sending institution for transfer.

## B. Receiving Institutions

1. Admission requirements and curriculum prerequisites shall be stated explicitly in institutional publications.
2. A receiving institution shall admit transfer students from newly established public colleges that are functioning with the approval of the M aryland H igher Education Commission on the same basis as applicants from regionally accredited colleges.
3. A receiving institution shall evaluate the transcript of a degree-seeking transfer student as expeditiously as possible, and notify the student of the results no later than midsemester of the student's first semester of enrollment at the receiving institution, if all official transcripts have been received at least 15 working days before midsemester. The receiving institution shall inform a student of the courses that are acceptable for transfer credit and the courses that are applicable to the student's intended program of study.
4. A receiving institution shall give a transfer student the option of satisfying institutional graduation requirements that were in effect at the receiving institution at the time the student enrolled as a freshman at the sending institution. In the case of major requirements, a transfer student may satisfy the major requirements in effect at the time when the student was identifiable as pursuing the recommended transfer program at the sending institution. These conditions are applicable to a student who has been continuously enrolled at the sending institution.
VIII. Programmatic Currency
A. A receiving institution shall provide to the community college current and accurate information on recommended transfer programs and the transferability status of courses. Community college students shall have access to this information.
B. Recommended transfer programs shall be developed with each community college whenever new baccalaureate programs are approved by the degree granting institution. Institutions shall notify each other of the proposed changes that might affect transfer students.

An appropriate mechanism shall be created to ensure that both two-year and four-year public colleges provide input or comments to the institution proposing the change. Sufficient lead time shall be provided to effect the change with minimum disruption. Transfer students are not required to repeat equivalent course work successfully completed at a community college.
IX. Transfer M ediation Committee
A. There is a Transfer M ediation Committee, appointed by the Secretary, which is representative of the public four-year colleges and universities and the community colleges.
B. Sending and receiving institutions that disagree on the transferability of general education courses as defined by this chapter shall submit their disagreements to the Transfer M ediation Committee. The Transfer M ediation Committee shall address general questions regarding existing or past courses only, not individual student cases, and shall also address questions raised by institutions about the acceptability of new general education courses. As appropriate, the committee shall consult with faculty on curricular issues.
C. The findings of the Transfer M ediation Committee are considered binding on both parties.

## X. Appeal Process

A. N otice of Denial of Transfer Credit by a Receiving Institution

1. Except as provided in A.2. of this regulation, a receiving institution shall inform a transfer student in writing of the denial of transfer credit no later than midsemester of the transfer student's first semester, if all official transcripts have been received at least 15 working days before midsemester.
2. If transcripts are submitted after 15 working days before midsemester of a student's first semester, the receiving institution shall inform the student of credit denied within 20 working days of receipt of the official transcript.
3. A receiving institution shall include in the notice of denial of transfer credit
a. A statement of the student's right to appeal, and
b. A notification that the appeal process is available in the institution's catalog.
4. The statement of the student's right to appeal the denial shall include notice of the time limitations in B. of this regulation.
B. A student believing that the receiving institution has denied the student transfer credits in violation of this chapter may initiate an appeal by contacting the receiving institution's transfer coordinator or other responsible official of the receiving institution within 20 working days of receiving notice of the denial of credit.
C. Response by Receiving Institution
5. A receiving institution shall
a. Establish expeditious and simplified procedures governing the appeal of a denial of transfer of credit, and
b. Respond to a student's appeal within 10 working days.
6. An institution may either grant or deny an appeal. The institution's reasons for denying the appeal shall be consistent with this chapter and conveyed to the student in written form.
7. Unless a student appeals to the sending institution, the written decision in C.2. of this regulation constitutes the receiving institution's final decision and is not subject to appeal.
D. Appeal to Sending Institution
8. If a student has been denied transfer credit after an appeal to the receiving institution, the student may request the sending institution to intercede on the student's behalf by contacting the transfer coordinator of the sending institution.
9. A student shall make an appeal to the sending institution within 10 working days of having received the decision of the receiving institution.
E. C onsultation Between Sending and Receiving Institutions
10. Representatives of the two institutions shall have 15 working days to resolve the issues involved in an appeal.
11. As a result of a consultation in this section, the receiving institution may affirm, modify, or reverse its earlier decision.
12. The receiving institution shall inform a student in writing of the result of the consultation.
13. The decision arising out of a consultation constitutes the final decision of the receiving institution and is not subject to appeal.

## XI. Periodic Review

A. Report by Receiving Institution

1. A receiving institution shall report annually the progress of students who transfer from two-year and four-year institutions within the state to each community college and to the Secretary of the M aryland H igher Education Commission.
2. An annual report shall include ongoing reports on the subsequent academic success of enrolled transfer students, including graduation rates, by major subject areas.
3. A receiving institution shall include in the reports comparable information on the progress of native students.
B. Transfer Coordinator

A public institution of higher education shall designate a transfer coordinator, who serves as a resource person to transfer students at either the sending or receiving campus. The transfer coordinator is responsible for overseeing the application of the policies and procedures outlined in this chapter and interpreting transfer policies to the individual student and to the institution.
C. The M aryland Higher Education Commission shall establish a permanent Student Transfer Advisory Committee that meets regularly to review transfer issues and recommend policy changes as needed. The Student Transfer Advi sory Committee shall address issues of interpretation and implementation of this chapter.

## APPENDIX C

## Policy of University of M aryland University College in Transferring Undergraduate C ollege-Level Credits

University of M aryland University C ollege actively subscribes to the policy of the $M$ aryland H igher Education Commission on the transfer of undergraduates within M aryland (see Appendix B) and welcomes transfer students. UM UC is also a designated four-year Servicemembers O pportunity College (SO C); the SOC institutions have developed common curricula corresponding to Army, Navy, and M arine career specialties. UM UC grants transfer credit for courses graded C or higher if they are applicable to an Associate of Arts, a Bachelor of Arts, or a Bachelor of Science degree.

C redit earned elsewhere during a period of disciplinary dismissal or suspension may not be applied toward a degree from UM UC. Newly admitted and prospective students may request a tentative evaluation of potential transfer credit from the Information and Enrollment Team. D egree seeking students who have completed 6 semester hours at U M UC with a grade point average of at least 2.0 may request an official evaluation of transfer credit from a counselor on their resource team. (M ore information is given on p. 171)

## M aximum Number of Transfer Credits Accepted

U M U C accepts up to 90 semester hours (45 semester hours for the associate's degree) of transfer credit from all sources combined toward the bachelor's degree. No more than 60 of the 90 semester hours may be accepted from two-year institutions (details on p. 52).

## M aximum Number of Credits Allowed for Innovative Learning

UM UC allows up to 90 semester hours of credit for innovative learning that is applicable to the student's curriculum (subject to limitations as follows):

- Up to 30 semester hours of credit for portfolio assessment (details on p. 51).
- Up to 60 semester hours of credit for learning evaluated by means of UM UC coursechallenge examinations and standardized examinations such as the Advanced Placement examinations administered by the College Board, the CollegeLevel Examination Program (CLEP), DANTES examinations, or the Regents CollegeTesting Program, if (1) there is no duplication of other academic credit and (2) the scores presented meet the standards of UM UC (details on p. 51).
- Up to 15 semester hours of cooperative education credit; however, no more than 6 of the 15 semester hours may be applied to a primary specialization (details on p . 51 ). Students seeking a second bachelor's degree may receive up to 9 semester hours of cooperative education credit; however, no more than 6 of the 9 semester hours may be applied to a primary specialization.
- Up to 90 semester hours of credit for study completed in service schools or in M ilitary O ccupational Specialties (M O S's), on the basis of the recommendations made by the American Council on Education (ACE) in its Guide to the Evaluation of Educational Experiences in the Armed Services. M OS credit may not be applied toward the general education requirements or toward primary and secondary specializations (details on p. 53).
- Up to 90 semester hours of credit for professional (not technical) courses that have been evaluated by either (1) the ACE N ational Guide to Educational Credit for Training Programs or (2) the University of the State of N ew York N ational Program on N on-C ollegiateSponsored Instruction (PO N SI) College C redit Recommendations (details on p. 53).
- Up to 21 semester hours of coherently related vocational and technical credit from regionally accredited institutions, applicable as elective credit only toward the B.S. but not toward the B.A. (details on p. 53).


## Minimum Number of Credits Required for Instruction in the Primary Specialization and for the D egree

UM UC requires students to complete 120 semester hours of credit for the bachelor's degree. Regardless of the number of transfer credits they present, students must complete a minimum of 30 credits at UM UC. As part of that minimum, students must earn at least 21 semester hours of their combined primary and secondary specializations at UM UC; at least 9 of the 21 semester hours must be in the primary specialization.

## G rade Level Acceptable for Transfer

U M UC may accept transfer credits from regionally accredited two- and four-year colleges and universities for courses graded C or above, if they apply to the student's curriculum. The grade of C -minus is not acceptable in transfer.

## Statement on Transfer of General Education Requirements

A student who has satisfactorily completed a course identified as a general education requirement at a M aryland community college will have met U M U C's general education require ment, as stated in Appendix B. For other students, courses are evaluated on a case-by-case basis. U M U C has included its evaluation of many M aryland community college courses in its section of the University System of M aryland's computerized articulation system (ARTSYS). This software is available at all two- and four-year M aryland public institutions. Students should see a counselor for details.

## APPENDIX D

## Policy of University of Maryland University College on Nondiscrimination

University of M aryland University College does not discriminate in either education or employment against any individual or group on account of race, religion, color, age, creed, gender, marital status, national origin, political affiliation, mental or physical disability, or sexual orientation.

Inquiries about compliance with Title VI of the Civil Rights Act of 1964, as amended; Title IX of the 1972 Education Amendments; Section 504 of the Rehabilitation Act of 1973; or related legal requirements should be directed to the U M UC human relations officer.

## APPENDIX E

## Policy of the University System of Maryland on Religious O bservances

University of M aryland University College conforms to U SM policy III-5.10 (Concerning the Scheduling of Academic Assignments on D ates of Religious O bservance), approved by the Board of Regents, January 11, 1990. The academic programs and services of UM UC shall be available to all qualified students who have been admitted to its programs, regardless of their religious beliefs. Students shall not be penalized because of observances of their religious holidays and shall be given an opportunity, whenever feasible, to make up within a reasonable time any academic assignment that is missed because of individual participation in religious observances.

Students who miss a class session because of an observance of their religious beliefs must be allowed (1) to make up any examinations, other written tests, or class work; (2) to have access to any handouts or other material distributed in class; and (3) to have the opportunity to obtain or review any duplicated lecture notes or slides presented in class.

UM UC prohibits scheduling examinations on the following religious holidays: Rosh H ashanah, Yom Kippur, and Good Friday.

## APPENDIX F

## Policy of University of Maryland University College on Disclosure of Students' Records ("Buckley Amendment")

University of M aryland University C ollege complies with the Family Educational Rights and Privacy Act of 1974 (the "Buckley Amendment"). It is the policy of UM U C (1) to permit students to inspect their education records, (2) to limit disclosure to others of personally identifiable information from education records without students prior written consent, and (3) to provide students the opportunity to seek correction of their education records where appropriate.
I. Definitions
A. "Student" means an individual who is attending or who has attended UM U C. It does not include any applicant for admission to U M UC who does not matriculate, even if he or she previously attended UM UC. (H owever, such an applicant would be considered a "student" for purposes of his or her records relating to that previous attendance.)
B. "Education records" includes records that contain information directly related to a student and that are maintained as official working files by UM UC. The following are not education records:

1. Records about students made by teachers and administrators for their own use and not shown to others.
2. C ampus police records maintained solely for lawenforcement purposes and kept separate from the education records described above.
3. Employment records, except when a currently enrolled student is employed as a result of his or her status as a student.
4. Records of a physician, psychologist, or other recognized professional or paraprofessional if made or used only for treatment purposes and available only to persons providing treatment. (These records, however, may be reviewed by an appropriate professional of the student's choosing.)
5. Records that contain only information relating to a person's activities after that person is no longer a student at UM UC.
II. Records

UM UC permits students to inspect their education records.
A. Right of Access

Each student has a right of access to his or her education records, except financial records of the student's parents and confidential letters of recommendation received prior to January $1,1975$.
A student may, by a signed writing, waive his or her right of access to confidential recommendations in three areas: admission to any educational institution, job placement, and receipt of honors and awards. UM UC will not require such waivers as a condition for admission or receipt of any service or benefit normally provided to students. If the student chooses to waive his or her right of access, he or she will be notified, upon written request, of the names of all persons making confidential recommendations. Such recommendations will be used only for the purpose for which
they were specifically intended. A waiver may be revoked in writing at any time; the revocation will apply to all subsequent recommendations, but not to recommenda tions received while the waiver was in effect.
B. Types and Locations of Education Records; Titles of Custodians of Records

1. UM UC maintains the following types of records:
a. Permanent academic record cards (for students admitted to U M UC prior to August 1, 1989).
b. Academic data, including application for admission, transcripts from institutions previously attended, unofficial and official evaluations, grade reports, and correspondence concerning the student.
c. Financial aid folder.
d. Veterans benefits folder.
2. The officials responsible for the maintenance of each type of record are
a. For Stateside Undergraduate Programs: Assistant Vice President, Student Services, and Registrar
University of M aryland University College College Park
b. For the G raduate School of M anagement \& Technology:
D irector of G raduate Services
University of M aryland University College C ollege Park
c. For Europe (except M annheim campus): D irector of Student Services
European Division
d. For $M$ annheim:

Assistant to the D ean
$M$ annheim Campus
e. For Asia:

D irector of Admissions and Registrations Asian Division
C. Procedure

Requests for access should be made in writing to the appropriate official. UM UC will comply with a request for access within a reasonable time. In the usual case, arrangements will be made for the student to read his or her records in the presence of a staff member. If facilities permit, a student may ordinarily obtain copies of his or her records by paying reproduction costs. The fee for copies is 25 cents per page. UM UC will not provide copies of any transcripts in a student's records other than the student's current UM UC transcript. O fficial transcripts (with the seal of UMUC) will be provided at a higher charge.
III. D isclosures

UM UC limits the disclosure of personally identifiable information from education records unless it has the student's prior written consent, subject to the following limitations and exclusions:
A. Directory Information

1. The following categories of information have been designated directory information:
a. $N$ ame
b. Primary field of study
c. D ates of attendance
d. Degrees and awards received
e. Previous educational institution most recently attended
2. This information is disclosed even in the absence of consent unless the student files written notice, within three weeks of the first day of the semester in which the student begins each school year, informing UM UC not to disclose any or all of the categories. To prevent automatic disclosure of directory information, this notice must be filed annually within the time allotted above, with the appropriate office (as listed in II.B.2.).
3. UMUC gives annual public notice to students of the categories of information designated as directory information.
4. Directory information may appear in public documents and otherwise be disclosed without the student's consent, unless a student objects as provided above.
B. Prior Consent $N$ ot Required

Prior consent is not required for disclosure of education records to the following parties:

1. School officials of the U niversity System of $M$ aryland who have been determined to have legitimate educational interests.
a. "School officials" includes instructional or administrative personnel who are or may be in a position to use the information in furtherance of a legitimate objective.
b. "Legitimate educational interests" includes interests directly related to the academic environment.
2. Officials of other schools in which a student seeks to enroll or is enrolled. Upon his or her request and at his or her expense, the student is provided with a copy of the records that have been transferred.
3. Authorized representatives of the comptroller general of the United States, the U.S. D epartment of Education, the director of the $N$ ational Institute of Education, the administrator of the Veterans Administration, and state educational authoritiesbut only in connection with the audit or evaluation of federally supported education programs or in connection with the enforcement of or compliance with federal legal requirements relating to those programs. Subject to controlling federal law or prior consent, those officials protect information received so as not to permit personal identification of students to outsiders.
4. Authorized persons and organizations that are given work in connection with a student's application for, or receipt of, financial aid-but only to the extent necessary for such purposes as determining eligibility, amount, conditions, and enforcement of terms and conditions.
5. State and local officials to whom-according to effective state law adopted prior to N ovember 19, 1974- such information is specifically required to be reported.
6. O rganizations conducting educational studies for the purpose of developing, validating, or administering predictive tests, administering student-aid programs, and improving instruction. The studies shall be conducted so as not to permit personal identification of students to outsiders, and the information is destroyed when it is no longer needed for those purposes.
7. Accrediting organizations, for purposes necessary to carry out their functions.
8. Parents of a student who is a dependent for income tax purposes. (N ote: U M U C may require documentation of dependent status, such as copies of income tax forms.)
9. Appropriate parties in connection with an emergency, if knowledge of the information is necessary to protect the health or safety of the student or other individuals.
10. The court system in response to a court order or subpoena. UM UC makes reasonable efforts to notify the student before complying with a court order.
C. Prior Consent Required

In all other cases, UM UC does not release personally identifiable information in education records or allow access to those records without the prior consent of the student. Unless disclosure is to the student himself or herself, the consent must be written, signed, and dated, and must specify the records to be disclosed, the identity of the recipient, and the purpose of the disclosure. A copy of the record disclosed is provided to the student upon his or her request and at his or her expense.
D. Record of Disclosures

UM UC maintains with the student's education records a record of each request and each disclosure, except for

1. D isclosures to the student himself or herself.
2. Disclosures made pursuant to the written consent of the student (the written consent itself suffices as a record).
3. Disclosures to instructional or administrative officials of the University System of M aryland.
4. Disclosures of directory information.

This record of disclosures may be inspected by the student, the official custodian of the records, and other officials of UM UC or governmental officials.
IV. Corrections

UM UC provides students the opportunity to seek correction of their education records.
A. Request to Correct Records

A student who believes that information contained in his or her education records is inaccurate, misleading, or violative of privacy right or other rights may submit a written request to the appropriate official (listed in II.B.2.) specifying the document(s) being challenged and the basis for the complaint. The request is then sent to the person responsible for amendments to the record in question. Within a reasonable period of time after receipt of the request, UM UC decides whether to amend the records in accordance with the request. If the decision is to refuse to amend, the student is so notified and is advised of his or her right to a hearing. He or she may then exercise that right by written request to the O ffice of the President.

1. Conduct of H earings

All hearings are conducted by an official of UM U C who does not have a direct interest in the outcome. The student is given a full and fair opportunity to present evidence relevant to the issues raised and may be assisted or represented by individuals of his or her choice (at his or her own expense), including an attorney.
2. Decision

Within a reasonable period of time after the conclusion of a hearing, UM U C notifies the student in writing of its decision. The decision is based solely upon evidence presented at the hearing and includes a summary of the evidence and the reasons for the decision. If UM UC decides that the information is inaccurate, misleading, or otherwise in violation of the privacy right or other rights of students, UM UC amends the records accordingly.
B. Right to Place an Explanation in the Records

If, as a result of a hearing, UM UC decides that the information is not inaccurate, misleading, or otherwise in violation of a student's rights, U M UC informs the student of the right to place in his or her record a statement commenting on the information and/or explaining any reasons for disagreeing with the decision. Any such explanation is kept as part of the student's record as long as the contested portion of the record is kept and is disclosed whenever the contested portion of the record is disclosed.
V. Right to File Complaint

A student alleging that UM UC has not complied with the Family Educational Rights and Privacy Act (FERPA) may file a written complaint with the Family Policy Compliance $O$ ffice, U.S. Department of Education, 600 Independence Avenue SW, Washington, DC 20202-4605.

## APPENDIX G

## Policy of University of Maryland University C ollege for Student Financial Aid Satisfactory Academic Progress Standards

Financial aid is intended to meet the financial needs of students who otherwise could not or would not consider continuing their education. Students who receive financial aid must not only demonstrate financial need but must also make satisfactory progress as determined by University of M aryland University C ollege in accordance with federal regulations.
Financial aid recipients are required to be in good standing and to maintain satisfactory academic progress toward their degree requirements for each semester/term in which they are enrolled. Satisfactory academic progress, as described in the following sections, is evaluated at the end of the fall and spring semesters and the summer trimester or each term of enrollment. Failure to maintain satisfactory progress, as described in the following sections, may result in cancellation of financial aid awards, and the student may have to repay any funds already received.

## I. Basic Standard for Undergraduate Students

U M U C 's institutional requirements for minimum satisfactory performance for financial aid recipients are defined as follows:
A. M inimum cumulative grade-point average (GPA). The student must maintain a minimum cumulative GPA of 2.0.
B. M inimum completion rate.

The student must achieve a minimum completion rate of 50 percent of the credits attempted for the semester/term. For example, a student who attempted 12 credits for the semester or term must have earned at least 6 of those 12 credits.
C. Federally mandated maximum number of credits in which to complete program or degree.
Students must complete their educational program by attempting no more than 150 percent of the published credit length of the educational program. For example, students in a 120 -credit program must complete their program after attempting a maximum of 180 credits.

Federal regulations require that UM UC track the academic progress of financial aid recipients from the first date of enrollment at UM UC, whether or not financial aid was received.

C redits transferred from all other sources will be considered as attempted and completed credits in the evaluation of the 150 percent completion standard. The two cumulative standards outlined above are eligibility requirements for student aid.
Students whose attempted credits, including transfer credits, exceed the 150 percent for any reason will be denied financial aid. No financial aid will be disbursed for the student during subsequent semesters or terms unless the student has made an appeal of the financial aid denial and the appeal is granted.
II. Treatment of W, I, AU , F, and S Grades; No Grade Reported; and Repeated Coursework
A. C ourse withdrawals (W) after the drop/add period are not included in the GPA calculation but are considered a noncompletion of attempted coursework.
B. Incomplete (I) grades are not included in the GPA calcuIation but are considered a noncompletion of attempted coursework until replaced with a permanent grade upon which academic progress can be reevaluated.
C. An audit (AU) grade is not considered attempted coursework. It is not included in the GPA calculation or completion rate determinations.
D. A satisfactory ( S ) grade is treated as attempted credits that are earned, but it is not included in the GPA calculation.
E. A failure ( F ) grade is treated as attempted credits that were not earned and is included both in the calculation of GPA and the minimum completion rate.
F. If no grade is assigned, for any reason, the credits will be treated as an "I" grade in determination of satisfactory academic progress.
G. In a course that is repeated, the highest grade earned will count in the GPA computation, but every repeated attempt will be included in the completion rate determinations. No financial aid can be disbursed for a repeated attempt if the student already has achieved a passing grade for the course. Additionally, UM U C's policy allows students to receive aid for only one repeat of a course.

## III. Financial Aid Academic Probation

Students who fail to meet the minimum 2.0 cumulative grade-point average standard or fail to meet the minimum 50 -percent completion rate will be placed on financial aid probation for the next semester/term of enrollment. Financial aid can be received during the semester/ term of probation. Financial aid disbursements for the next period of enrollment will be held until the grades and course completions have been reviewed for the semester/term of financial aid probation.
Students receiving financial aid for the first time will be placed on financial aid probation if they do not meet the minimum grade-point average or course completion standards as noted in this policy in a previous semester/term of enrollment at UMUC.

## IV. Financial Aid D enial

Students who, while on financial aid probation or on financial aid denied status, fail to maintain the minimum completion rate and/or fail to maintain a minimum cumulative GPA of 2.0 or better will be placed on financial aid denial status for the following period of enrollment. No financial aid will be disbursed during subsequent semesters/terms until the student is removed from financial aid denial status.

Students who fail to satisfy the 150 -percent requirement will also be placed on financial aid denial status. No aid will be disbursed during subsequent semesters/terms unless the student has made an appeal and the appeal has been granted for that semester/term. T here are no exceptions to this requirement. Students in a 120-credit bachelor's degree program who have attempted in excess of 180 credits, including transfer credits, are no longer eligible for financial aid. There is no probationary period.
V. Reinstatement of Aid Following Financial Aid Denial Reinstatement of financial aid after a student is placed on financial aid denied status is achieved in one of the following ways:
A. The student submits a written letter of appeal in accordance with the appeal process, and the Financial Aid Appeals C ommittee grants the appeal. The student is placed on financial aid probation rather than financial aid denied status for the semester/term.
B. The student attends UM UC, pays for tuition and fees without the help of student financial aid, and does well enough in the coursework to satisfy all the satisfactory academic progress standards. The student regains aid eligibility and is in good standing. Students who are in financial aid denied status for failure to meet the 150-percent requirement cannot regain eligibility this way. Students whose attempted credits have exceeded 150 percent of their program cannot regain financial aid eligibility except on a term-by-term or semester-by-semester basis through the appeal process.
C. The student does not enroll in any courses at UM UC for three cal endar years following the assignment of financial aid denied status. W hen readmitted, the student will be placed on financial aid probation. Students who are in financial aid denied status for failure to meet the 150 percent requirement cannot regain eligibility this way. Students whose attempted credits have exceeded 150 percent of their program cannot regain financial aid eligibility except on a semester-by-semester or term-by-term basis through the appeal process.

## VI.Appeal Process

The student must submit an appeal of financial aid denied status in writing to the director of Financial Aid by the date specified in the financial aid denial notification letter. The Financial Aid Appeals C ommittee will review the appeal and notify the student in writing of its decision within 14 working days after meeting and making its determination. All decisions made by the Financial Aid Appeals C ommittee are final.

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## Key to Map of UMUC and College Park Facilities

| AN | Animal Sciences Building | H5 |
| :--- | :--- | ---: |
| ARC | Architecture Building | F2 |
| ASY | Art-Sociology Building | F2 |
| BPS | Biology/Psychology Building |  |
|  | (formerly Zoology/Psychology) |  |
| CH E | Chemical Engineering Building | H5 |
| CH M | Chemistry Building | G5 |
| CLB | Classroom Building | H6 |
| COL | Cole Student Activities Building | G3 |
| CSS | Computer and Space Sciences Building | I4 |
| EDU | Benjamin Education Building | G3 |
| EGR | Engineering Classroom Building | G5 |
| GEO | Geology Building | G4 |
| HAR | Harrison Lab | E6 |
| HBK | Hornbake Library | G4 |
| HHP | Health and H uman Performance Building | J4 |
| HJP | H.J. Patterson Building | F4 |
| HZF | H olzapfel H all | F4 |
| ICC | Inn and C onference Center | G1 |
|  | (formerly Center of Adult Education) |  |
| ITV | Instructional Television Facility | G5 |
| JM P | J.M. Patterson H all | H5 |


| JM Z | Jimenez Foreign Language H all | F3 |
| :--- | :--- | :--- |
| JRN | Journalism Building | F3 |
| KEY | Francis Scott Key H all | E3 |
| LEF | LeFrak H all | E3 |
| M CB | Microbiology Building | G4 |
| MCK | M CK eldin Library | F3 |
| M M H | Marie M ount H all | E4 |
| M TH | M athematics Building | G5 |
| PH Y | Physics Building | G5 |
| PLS | Plant Sciences Building | G4 |
| SQ H | Susquehanna H all | D3 |
| SFC | Student and Faculty Services Center | G1 |
| SH M | Shoemaker H all | E3 |
| SH R | Shriver Laboratory | F4 |
| SKN | Skinner Building | E4 |
| SSU | Stamp Student Union | G3 |
| SYM | Symons H all | F4 |
| TLF | Taliaferro H all | E3 |
| TWS | Tawes Fine Arts Building | F2 |
| TYD | Tydings H all | E3 |
| WDS | Woods H all | E4 |

## Maps of the Centers

## UMUC ANNAPOLIS CENTER



## USM SHADY GROVE CENTER



## CCCC-UMUC WALDORF CENTER



## Application for Admission

## CRITERIA FOR APPLYING

The application form (the four pages that follow) must be used by the following:

- Prospective new undergraduate students.
- Previously admitted students who have not registered for at least two years (no application fee required).

This application form may not be used by the following:

- Non-U.S. citizens and students educated abroad. Those students should contact the international admissions evaluator at 301-985-7265 for procedures.
- Undergraduates currently enrolled elsewhere in the University System of M aryland.
Those students must submit permission forms from their departments.
- Graduate students currently enrolled in the University System of $M$ aryland. Those students must either submit proof of current admission and pay graduate fees for all courses or else resign from graduate school and then apply as undergraduates.

The completed application form should be mailed to the following address:

Information and Enrollment Team
University of $M$ aryland University C ollege
University Boulevard at Adelphi Road
College Park, M D 20742-1628

## Undergraduate Application for Admission University of M aryland University C ollege College Park, MD 20742-1682

A \$30 nonrefundable fee must accompany this application. You may mail this application to the above address, fax it to 301-985-7978, or bring it to a walk-in IRIS registration.

Please print your name and Social Security number on each page.

1. Social Security number: $\qquad$
2. $N$ ame (last, first, middle):

Former or maiden name:
3. Current address:
$\qquad$


If you have lived less than one year at this address, please provide the following information.
Previous address:
Apt. no.:

| City: | County: | State: | Zip+4: |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| O Own | $\square$ Rent | How long did you live at this address? | Yrs: | M os: |

4. Daytime phone number: ( )
Fax number: ( ) E-mail address:
5. Employer: Employer's zip +4 :
6. Gender: Male Female
7. Date of birth (M o/D ay/Yr): / /
8. Racial/ethnic category (Federal regulations require that we record the foll owing data. It is not used to determine your admissibility to U M U C.)

- African American a Asian/Pacific Islander Hispanic a Native American White $\quad$ Other $\qquad$

9. H ave you ever served in the military? No Yes If yes compleeserviceinformation below and attach a copy of mos recent assignment orders

| $\square$ Active duty | $\square$ V eteran | $\square$ Reteran, disabled |
| :--- | :--- | :--- |
| H ome state of record: | D ates of service: | D uty station: | Branch of the military: $\quad$ Separation date $(\mathrm{M} \mathrm{o/D} \mathrm{ay/Yr):} \quad / \quad 1$

10. Are you the spouse or dependent of a full-time active duty member of the U.S. Armed Forces? No Yes (spouse) Yes (dependent)

If yes, complete service information below and attach a copy of servicemember's most recent assignment orders.
H ome state of record: D ates of service: D uty station:
Branch of the military:
11. Are you a U.S. citizen? Yes No If no, please provide the following information and supply copies of all supporting documentation.

Country of birth: Current citizenship:

| Type of visa: | Expiration date $(\mathrm{Mo} / \mathrm{D}$ ay $/ \mathrm{Yr}):$ | $/$ | $/$ |
| :--- | :--- | :--- | :--- |
| Alien registration no.: | D ate issued $(\mathrm{M} \mathrm{o/D} \mathrm{ay/Yr):}$ | $/$ | $/$ |

12. Is English your native language? Yes No
 ResGeog CDRace
$\qquad$
13. Are you applying for any of the following types of aid?
Financial aid Yes V Noterans benefits - Yes a No Golden ID benefits Yes a No
14. H ave you already earned a collegelevel degree? - No Yes If yes, indicate below any degree you have already earned.

- Associate's degree
- Bachelor's degree
- M aster's degree
- Professional degree (M.D., J.D.)
- Other $\qquad$

15. What is your academic goal in attending UM UC ?

- I plan to earn a bachelor's degree at UM UC.
- I am currently interested in taking classes, but I am definitely not seeking a degree at U M UC or anywhere else.
- I am undecided about my academic goal.
- I plan to earn a bachelor's degree at some other institution, not at UMUC.

16. If you plan to earn a degree at UM U C, please indicate which degree and specialization below.

- A.A. (for active duty military only) - B.A. (requires foreign language) a B.S.

Primary specialization (or general area of study, e.g., computing or business):
Team
Secondary specialization (first degree only):
17. Please indicate below how you completed your secondary school education.

- High school

N ame of high school:
Location (city/state):
Date of graduation (M o/Yr): /

- GED

D ate of exam ( $\mathrm{Mo} / \mathrm{Yr}$ ): $\qquad$
Do your GED scores total at least 225 , with no score lower than 40 on any of the five tests? Yes No

- Study abroad
$N$ ame of exam/certificate: Date (M o/Yr):

1
18. List all colleges and universities previously attended, including other institutions of the University System of $M$ aryland. We may deny transer credit from any institution not listed below. To be eligible for transfer credit for previous college work, you must submit an official transcript from all coll eges attended. To receive transfer credit for military experience, professional training, and credit by examination, you must submit appropriate documentation.

|  |  |  |  | Number <br> of credits <br> earned | Type of <br> degree earned | D ate <br> awarded | Official <br> transcript <br> received |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Example: UM CP | City, State | From | To |  | none |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

-DO NOT WRITE BELOW THISLINE-

| - New | - Readmit | $\square$ Regular | $\square$ - Provisional | -Temp. Pass |  | - Spec. Int'l. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\square 0$ wes Fee | $\square \mathrm{Fee} \mathrm{N}$ ot Required |  | - FeePaid \$ |  |  |  |
| Sign_ |  | Date | Letter |  | Type $\square$ | $\square \quad$ Decis. $\square \square \square$ |
| Sign |  | D ate | Letter |  | Change of | of D ecision $\square \square \square \square$ |

Name $\qquad$
19. If you have previously attended UM UC, please indicate where and list dates of attendance.

- In the U nited States
- In Europe
- In Asia
D ates:
$\qquad$
If you attended U M UC courses on a military base, please indicate the base where you most recently attended class:

20. Are you currently admitted to another institution in the U niversity System of M aryland or to the U M U C Graduate School of $M$ anagement \& Technology? No Yes If yes, indicate which institution: $\qquad$
21. Indicate your academic standing at the last institution you attended:

- In good standing academically dismissed within the last two years

22. Do you have at least a 2.0 grade-point average from your last institution? Yes a No
23. Determination of M aryland Residency: Do you wish to be considered for in-state tuition status? No Yes

Applicants seeking in-state residence status must complete the following questions. O ut-of-state applicants, skip to \#35.
U M U C reserves the right to request additional information, if necessary. In the event U M UC discovers that you have supplied false or misleading information, UM UC may bill retroactively to recover the difference between in-state and out-of-state tuition for all semesters involved. In the event you are misclassified as a $M$ aryland resident, UM U C reserves the right to bill for out-of-state tuition for the current and subsequent semesters.
If you - or your spouse, parent, or guardian - are a regular employee of the $U$ niversity System of $M$ aryland, please attach a letter of verification from the personnel office of the appropriate institution.
24. On whom will you be financially dependent for your educational and living expenses while attending UM UC ?

- Self $\quad 0$ ther (If other, specify provider in \#26, below.)

25. H ave you received any type of financial aid (Ioan, scholarship, grant) from a state other than $M$ aryland within the last 12 months?
$\square$ No Yes If yes, from which state? $\qquad$
26. For the most recent 12 months, has another person (spouse, parent, guardian)
a) Provided one-half or more of your financial support? - No Yes
b) C laimed you as a dependent on a federal or state income tax return? $\quad$ No

- Yes
c) If the answer to $a$ or $b$ is yes, the provider must complete the following information and sign the application.
Provider's name: $\quad$ Relationship to applicant: If spouse, date of marriage (M o/D ay/Yr): $\quad / \quad /$

Address:
City: $\quad$ State: $\quad$ Zip+4:

Length of time at this address ( $\mathrm{Y} \mathrm{rs} / \mathrm{M} \mathrm{os}$ ):
Amount of support (in the last 12 months): \$

Are you a citizen of the U nited States? No Yes

If not a U.S. citizen, please provide the following information and supply copies of all supporting documentation.

Country of birth:

| Type of visa: | Expiration date $(\mathrm{M} \mathrm{o/D} \mathrm{ay/Yr):}$ | 1 | 1 |
| :--- | :--- | :--- | :--- |
| Alien registration no.: | D ate issued $(\mathrm{M} \mathrm{o/Day} / \mathrm{Yr}):$ | 1 | 1 |

N ame $\qquad$

If you provided more than half of your own support, you must answer the following questions(\#27-35). 0 therwise, the person named in \#26c must answer them.
27. Is all, or substantially all, of your personal property in $M$ aryland? $\quad$ No Yes
28. Are you currently registered to vote? No Yes If yes, in which state?
29. D o you have a valid driver's license: No Yes If yes, from which state?

If you are licensed to drive in M aryland, were you previously licensed to drive in another state? No Yes
If yes, provide the date the M aryland license was originally issued ( $\mathrm{M} \mathrm{o/Yr}$ ):
30. Do you own a motor vehicle? No Yes

If yes, in which state is it registered?
If your vehicle is registered in $M$ aryland but was previously registered in another state, provide the original date of registration in $M$ aryland ( $\mathrm{Mo} \mathrm{o} / \mathrm{Yr}$ ):
31. D o you own (or rent) and occupy living quarters in M aryland on a year-round basis? $\quad$ No Yes
32. H ave you paid $M$ aryland income tax for the most recent year on all earned income, including all taxable income earned outside the state? - No Yes
a) List the year(s) in which you filed a $M$ aryland income tax return within the past two years:
b) List the year(s) in which you filed tax returns in another state within the past two years:
c) If you did not file a tax return in $M$ aryland within the past 12 months, state the reason(s): $\qquad$
33. If you are employed in $M$ aryland, is $M$ aryland income tax being withheld? $\quad$ No Yes
34. Are you or is your spouse a full-time, active duty member of the U.S. Armed Forces? $\quad$ No Yes If yes, please attach a copy of most recent assignment orders.
If yes, have you established $M$ aryland as your home of residence? - No a Yes Effective date of M aryland residency: $\quad$ / $/$
35. I hereby certify that I have completed all questions and that the information given above is complete and accurate, and I understand that summary dismissal is the penalty for falsification of that information. - Provision of my Social Security number is voluntary; if I so desire, I may request that another number be assigned to me for purposes of identification. • I understand and agree that, if I enroll in classes offered at military sites, my name, Social Security number, and other personal information may be released for security purposes. - By signing below, I agree that the information in this application and all my records from any institution in the U niversity System of $M$ aryland may be released (at the discretion of the releasing institution) to any other institution in the System, in accordance with the System-wide policy on academic integrity. - In making this application, I accept and agree to abide by the policies and regulations of UM UC concerning drug and alcohol abuse and understand that the unlawful use of alcohol or drugs will subject me to the penalties contained in those policies and regulations. If my circumstances change, affecting my residency status, I agree to notify UM UC in writing within 15 days.

Signature of applicant:
D ate of application (M o/D ay/Yr): / /

Signature of provider:
D ate of application ( $\mathrm{Mo} / \mathrm{D}$ ay $/ \mathrm{Yr}$ ):
11

A $\$ 30$ nonrefundable fee must accompany this application (unless you have attended UM UC before). If you pay by check or money order, please write your Social Security number on the check. If you wish to pay by credit card, please fill out the information below.

```
- M asterCard - VISA
```

Customer acct. no.:
Exp. date (M o/D ay/Yr):

## Academic Calendar

## STATESIDE

H undreds of courses and programs are scheduled each term at times and places convenient to students. Because of that varie ty, conflicts may arise that affect the calendar dates. D ates given below are approximate. Specific dates, times, and locations are published in the Undergraduate Schedule of Clases each term.

## Fall 1999

Undergraduate Schedule of Classes
available
M ail-in registration
Touch-tone registration
Walk-in touch-tone registration
Late walk-in touch-tone registration
Standard semester and term I begin at most locations
Term II and mid-fall mail-in registration ends
Term II and mid-fall touch-tone registration
Term II and mid-fall walk-in touch-tone registration

July 1-0 ctober 21

Term I ends at most locations
Term II and mid-fall begins at most locations
Holidays
Standard semester and term II end at most locations
Mid-fall ends
January Term 2000
Touch-tone registration
Term begins
Term ends
Early July
July 1-August 13
July 1-September 7
August 25-30
September 1, 2, 7
September 1 0 ctober 15

0 ctober 21
0 ctober 21
0 ctober 25
N ovember 25-28
D ecember 17
February 5

Spring 2000
Undergraduate Schedule of Classes available
M ail-in registration
Touch-tone registration
Walk-in touch-tone registration
Standard semester and term I begin at most locations

January 29
Term II and mid-spring mail-in registration ends

M arch 10
Term II and mid-spring touch-tone registration $\quad$ N ovember 1-M arch 29
Term I ends at most locations M arch 16
Term II and mid-spring begins at most locations M arch 18
Holidays
M arch 20-26
Standard semester and term II end at most locations
Commencement
May 15
Mid-spring ends
May 20
July 1
Early N ovember N ovember 1-January 7
N ovember 1-February 5
January 24-26

## Summer 2000

Undergraduate Schedule of Classes
available
M ail-in registration
Touch-tone registration
Walk-in touch-tone registration
Late walk-in touch-tone registration
Trimester and term I begin at most locations
H oliday
Term II mail-in registration ends
Term II touch-tone registration
Term II walk-in touch-tone registration
Term I ends at most locations
Term II begins at most locations
Trimester and term II end at most locations

Early April
April 1-M ay 12
April 1-July 18
May 23,25
$M$ ay 26 , June 6
M ay 30
July 4
June 23
April 1-July 18
July 6
July 11
July 12
August 22

An Undergraduate Schedule of Classes is avai lable from
Undergraduate Enrollment M anagement
University of M aryland University College
University Boulevard at Adelphi Road
College Park, MD 20742-1663
301-985-7800
umucinfo@info.umuc.edu

## OVERSEAS

## Asian Division

1999-2000

Term I
Term II
Term III
Term IV
Term V
Commencement
August 23-0 ctober 16
0 ctober 25-D ecember 18
January 24-M arch 18
April 3-M ay 27
June 5-July 29

## European Division

1999-2000
Term I
Term II
Term III
Term IV
Term V
Commencement
August 23-0 ctober 15
0 ctober 25-D ecember 17
January 24-M arch 17
M arch 27-M ay 19
June 5-July 28

C atal ogs for the overseas divisions are available from Assistant to the President for O verseas Programs University of M aryland University College
University Boulevard at Adelphi Road
College Park, M D 20742-1642
301-985-7070
overseas_programs@admin.umuc.edu

M ay 28

On the Cover: Scolt Brouard, Counting Crous (1995).
UMUC Maryland Artists Collecton
Sent Brouard recelved his Master of Fine Aris from The Anwerican University in Washington, D. C., and has been a Comus, Marsiland, resident for 17 years. He is artist ic difector of the Hyattstown Mill Project, an arts center showcasing western Maryland writers, painters, poets, and crafispeaple. Counting Cowns, in oil on board, is typkoal of Bround's nature-based expresslve landsrape paintlng. Says Brotard, "I feel that all art, even abstract, at some point is rooted in nature.'


[^0]:    * Students are advised to consult a counselor before selecting this discipline for a specialization.

[^1]:    * Strongly recommended for students in this specialization.

[^2]:    * Strongly recommended for students in this specialization.

[^3]:    * Strongly recommended for students in this specialization.
    ** Sequence recommended for students in this specialization.

[^4]:    * Recommended for students in this specialization.

[^5]:    * Strongly recommended for students in this specialization.

[^6]:    (Also listed as PSYC 200.) Prerequisite: College algebra (M ATH 107 or equivalent). An introduction to research in the social sciences, emphasizing the role of statistical analysis in answering questions. Integrating statistical methods with research design is a major concern. Topics include the measurement of variables, methods of designing questionnaires, measures of central tendency and dispersion, correlation, statistical inference and probability, experimental designs, t-tests, analysis of variance, data coding, and chi-square tests. Students may receive credit for only one of the following courses: BEH S 202, BEH S 302, BM GT 230, ECON 321, GNST 201, MATH 111, M GM T 316, PSYC 200, SOCY 201, STAT 100, or STAT 400.

[^7]:    * The UM UC policy on religious holidays is stated in the appendices.

[^8]:    * Residency status is defined in the appendices

[^9]:    gradschool@info.umuc.edu via e-mail
    or
    Graduate School of M anagement \& Technology
    University of M aryland University College
    University Boulevard at Adelphi Road
    College Park, M D 20741-0869

[^10]:    * American Council on Education (ACE) credit recommendation.

