

2020–2021 CATALOG



UNIVERSITY OF MARYLAND
GLOBAL CAMPUS





MISSION

The mission of University of Maryland Global Campus is improving the lives of adult learners. We will accomplish this by operating as Maryland's open university, serving working adults, military servicemen and servicewomen and their families, and veterans who reside in Maryland, across the United States, and around the world.

VISION

UMGC will be a global leader in adult education focusing on career-relevant programs that enable students to realize their professional aspirations.

VALUES

- **Students First:** These are the people who make our work possible.
- **Accountability:** We are each responsible for our overall success.
- **Diversity:** Each individual brings value to our efforts and results.
- **Integrity:** Our principles and standards are never compromised.
- **Excellence:** Quality is the hallmark of our work.
- **Innovation:** We advance so others can benefit from our leadership.
- **Respect:** The rights and feelings of others are always considered.
- **People Always:** Our faculty and staff represent our differentiator and competitive advantage.

From the Chief Academic Officer



Dear Learner,

Welcome to University of Maryland Global Campus! On behalf of our more than 4,500 faculty and 1,730 staff worldwide, we are delighted that you have chosen us to help you achieve your education and career goals.

At UMGC, we know that every learner is on a unique and personal journey. Furthering your education may be a personal goal or a critical stepping-

stone to career advancement. You may be working toward a certificate or a degree or simply acquiring the necessary knowledge and skills to earn industry-recognized certifications. Some of you may be striving to provide a model for your family, demonstrating that education is both important and attainable. And in all likelihood, you're also juggling work and family responsibilities in addition to managing school.

You bring to our learning community a host of life and work experiences and formal and informal education that enriches each class. For those of you beginning undergraduate study, this also means you need not start your educational journey from square one. We offer a range of ways for you to earn credit for what you know and can do to put you on the most efficient pathway to your goal.

Our Schools of Arts and Sciences, Business, and Cybersecurity and Information Technology offer you a range of options for meeting your goals, all with a focus on providing you a meaningful and high-quality educational experience. We develop our courses and programs with you—the learner—at the center and strive to provide an engaging and professionally relevant education in which you learn by doing and which supports your development of transferrable and discipline-specific skills.

Our goal is to give you access to the best education to meet your goals, everywhere, anytime. Congratulations on taking this first step. We are excited to support you throughout your academic journey.

A handwritten signature in black ink, appearing to read 'Blakely R. Pomietto'.

Blakely R. Pomietto
Senior Vice President and Chief Academic Officer

POLICY STATEMENT

This publication and its provisions do not constitute and should not be regarded as a contract between UMGC and any party or parties, nor is it a complete statement of all policies, procedures, rules, regulations, academic requirements, or tuition and fees applicable to UMGC, its students, or its programs. UMGC reserves the right to make changes to the policies, procedures, rules, regulations, and academic requirements set out in this publication without prior notice. Such changes will be reflected on the university's website or other publication.

This catalog provides the degree requirements and recommended curriculum for students who begin continuous enrollment on or after August 1, 2020. When a curriculum or graduation requirement is changed, it is not made retroactive unless the change is to the student's advantage and can be accommodated within the span of years normally required for graduation. See additional policies on pp. 317–319.

Sources for any claims made throughout this catalog may be found on the UMGC website (umgc.edu).

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Welcome to UMGC

From its founding in 1947, University of Maryland Global Campus (UMGC) has had a single mission: to meet the educational needs of adult students like you—students who must balance study with the demands of work and family life.

Since then, the university has grown to be the largest public university in the nation, serving students throughout the state, the country, and the world. And although its name has changed more than once over the decades (from the College of Special and Continuation Studies to University College, from UMUC to UMGC), the university's mission (stated on inside front cover) and focus on providing open access to high-quality educational programs and services—eliminating the barriers that can keep you from achieving your educational goals—remains unchanged.

For information on UMGC's mission, history, and values, visit umgc.edu/mission.

CARRYING OUT THE MISSION

Students First

At UMGC, your success as a student is of paramount importance. The university seeks not only to help you fulfill your current education goals but also to create an educational partnership that will last throughout your life.

To that end, the university looks first for ways to ensure that you can easily access programs and services. Admission policies are designed to simplify the process (standardized tests are not generally required), making it possible for you to apply and register for most programs at the same time.

As a global university, UMGC makes it possible for you to take classes any time, any place, by offering a large selection of online programs—in addition to classes at sites throughout Maryland and the Washington, D.C., metropolitan area and at military sites all over the world.

You can also access student services online and by phone, as well as on-site at many locations.

Convenience and flexibility are not the only issues, however. UMGC seeks to create a learning environment that is respectful of diverse backgrounds, inclusive, responsive, and relevant.

Recognizing that financial concerns often present the biggest obstacle to higher education, UMGC also strives to keep tuition costs low and provides numerous financial aid opportunities, including scholarships for military and community college students.

Excellence

A regionally accredited university, UMGC is dedicated to providing the highest quality programs and services and ensuring excellence in its online and on-site classes.

In providing these programs, UMGC relies on a renowned faculty of scholar-practitioners—teachers who bring real-world experience as well as advanced academic credentials to your courses—and the use of the latest technologies. UMGC also is able to provide you with a wealth of resources because of its place within the University System of Maryland.

The success of UMGC's efforts over the years is evident. UMGC has garnered awards from such notable organizations as the World Affairs Council, E-C Council, University Professional and Continuing Education Association, Online Learning Consortium (formerly the Sloan Consortium), and Maryland Distance Learning Association.

Innovation

UMGC has always looked for new and better ways to serve students. Long before the online revolution, the university was delivering courses to students at distant locations, using any and all available technologies—from interactive television to voice mail. Today, you can access

both courses and services online, using the university's learning management system and MyUMGC, its online gateway to services and information. Through its Office of Academic Quality, UMGC leads the search for next-generation learning models and best practices for online learning.

PROGRAMS AND FACILITIES

UMGC offers degree programs from the associate level to the doctorate. Most undergraduate and graduate programs are available online. These academic programs are administered by the School of Arts and Sciences, the School of Business, and the School of Cybersecurity and Information Technology, which are described in the following pages.

The university's administrative headquarters are located in Adelphi, Maryland, and also serve as home to a prestigious art collection and a conference facility, the College Park Marriott Hotel & Conference Center at UMGC. The three academic schools, as well as all related academic support units, are housed at the Academic Center at Largo.

FOR ASSISTANCE

Contact us by email at studentsfirst@umgc.edu or by phone at 800-888-8682.

ABOUT STUDY AT UMGC

Admission

UMGC's admission requirements reflect our mission as Maryland's open university.

General Information

Before the beginning of each academic term, UMGC holds various online events, as well as on-site open houses in the Maryland area, for new and prospective students. These events offer an opportunity to learn about UMGC and its programs, student services, academic and career offerings, faculty members, and students. You can apply for admission and enroll in courses during the on-site open houses.

For general information or to be directed to an individual who can answer specific questions, call 800-888-8682.

Undergraduate Admission Requirements

General Requirements

To be considered for admission, you must have graduated from a state-approved or regionally accredited U.S. high school or achieved one of the following qualifications representing high school equivalency or better:

- Passing scores on a state high school equivalency exam, such as the General Educational Development (GED) test
- Graduation from a homeschool or alternative high school program that meets the criteria set forth by state and local education regulations
- Graduation from a non-U.S. high school
- An associate degree or higher from an accredited postsecondary institution or at least 60 college credits from an accredited postsecondary institution with at least a 2.0 grade point average (GPA) on a 4.0 scale

High school students who meet certain criteria (described on p. 10) may also be considered for admission and concurrent enrollment.

In addition to meeting the academic criterion listed above, you must be at least 13 years old, meet UMGC's English proficiency requirement, and be in good standing at any institutions that you previously attended, as noted in UMGC Policy 210.00 Undergraduate Admission. Standardized test scores are not required.

Special eligibility requirements (described at right) apply to admission to the Associate of Arts degree program. Additional admission requirements may apply if you are pursuing certain bachelor's and degree programs. See Undergraduate Program-Specific Requirements on p. 7.

Regardless of program, your eligibility for admission may be limited by foreign citizenship or international residency, in accordance with federal law. In such cases, additional admission procedures may apply.

You must be admitted to the university before you can register for classes.

UMGC Policy 210.00 Undergraduate Admission is available online at umgc.edu/policies.

Requirements for the Associate Degree Program

To be eligible for admission into the Associate of Arts (AA) degree program, you must also provide documentation demonstrating that you belong to one of the following populations:

- Full-time active-duty servicemembers, selected reservists, National Guard members, and Commissioned Corps members of the U.S. Public Health Service or the National Oceanic and Atmospheric Administration
- Spouses or dependent children of any servicemember noted above
- Veterans
- Spouses or dependent children of veterans
- Applicants to the Europe or Asia divisions or students who began an AA degree program while admitted to UMGC's European or Asian division and subsequently relocated to the stateside division
- UMGC employees
- Spouses or children of UMGC employees
- Participants in a negotiated business-to-business agreement that includes the option of pursuing an AA degree with UMGC

Undergraduate Student Status

As an undergraduate student, you are assigned regular, provisional, or visiting status.

REGULAR

To be assigned regular student status, you must meet the general admission requirements. If you attended another institution of higher education within the last two years, you must also have a grade point average (GPA) of 2.0 or higher and be in good academic standing at the last institution of higher education you attended.

As a student in regular status, you are limited to enrolling in the number of credits set forth in UMGC Policy 215.00 Student Academic Load and Enrollment Status (available online at umgc.edu/policies). Course load is discussed on p. 293.

ABOUT STUDY AT UMGC

PROVISIONAL

You will be assigned provisional status if you meet the general admission requirements but one of the following conditions applies:

- You had a GPA lower than 2.0 at the last institution that you attended within the last two years.
- You were on academic probation for poor academic performance at the last institution that you attended within the last two years.
- You were dismissed for poor academic performance from the last institution that you attended within the last two years.
- You are currently a high school student who qualifies for concurrent enrollment. (See p. 10 for additional information about qualifying for concurrent enrollment.)

As a provisional student, you may enroll for a maximum of 7 credits per term. If you are a concurrently enrolled high school student, you maintain your provisional status until you submit proof of high school completion. All other provisional students must complete 7 credits of graded coursework with a cumulative GPA of 2.0 or higher before being considered for regular student status. All provisional students must contact an advisor to request regular student status.

VISITING

If you are currently attending another institution of the University System of Maryland (USM) as an undergraduate or graduate student, you may take undergraduate courses without applying to UMGC. Instead, you must submit a letter or form authorizing your enrollment at UMGC for the term in which you wish to attend. Your previous coursework will be reviewed by the appropriate UMGC academic department to see if course prerequisites have been met. The number of credits you may take and the transferability of academic work completed at UMGC are determined by your home institution.

If you are attending an institution outside the USM, you must apply for admission to UMGC.

Undergraduate Program-Specific Requirements

NURSING FOR REGISTERED NURSES

To pursue a major in nursing for registered nurses, you must have an associate degree in nursing or a diploma from a registered nursing education program that is recognized by the appropriate state board of nursing and must reside in and have an active, unencumbered nursing license in an approved state.*

BIOTECHNOLOGY

To pursue a major in biotechnology, you must have completed the required lower-level coursework for the biotechnology major—either within an Associate of Applied Science degree program at a community college with which UMGC has an articulation agreement or within another appropriate transfer program. Consult an advisor before electing this major.

LABORATORY MANAGEMENT

To pursue a major in laboratory management, you must have completed the required lower-level coursework for the laboratory management major—either within an Associate of Applied Science degree program at a community college with which UMGC has an articulation agreement or within another appropriate transfer program. Consult an advisor before electing this major.

Graduate Admission Requirements

General Requirements for Graduate Certificates and Master's Degree Programs

To be considered for admission, you must have graduated from a regionally accredited degree-granting university or college with a bachelor's degree (or higher). Graduates from other accredited institutions may be considered on a case-by-case basis. Applicants who are not seeking a degree or certificate must meet the same criteria and are limited to taking a maximum of 12 credits.

In addition to the academic criteria listed above, you must meet UMGC's English proficiency requirement, as noted in UMGC Policy 170.10 Graduate Admission (available online at umgc.edu/policies). Standardized test scores, such as the Graduate Record Examination (GRE) or Graduate Management Admission Test (GMAT), are not required for most programs. Additional admission requirements, which may include standardized test scores, may apply if you are pursuing certain degree programs. See Graduate Program-Specific Requirements on p. 8.

Regardless of program, your eligibility for admission may be limited by foreign citizenship or international residency, in accordance with federal law. In such cases, additional admission procedures may apply.

You must be admitted to the university before you can register for classes.

* See umgc.edu/nursing for the most up-to-date list of approved states.

ABOUT STUDY AT UMGC

Graduate Student Status

As a graduate student, you are assigned regular or visiting status.

REGULAR

To be assigned regular student status, you must meet the general admission requirements.

As a student in regular status, you are limited to enrolling in the number of credits set forth in UMGC Policy 215.00 Student Academic Load and Enrollment Status (available online at umgc.edu/policies). Course load is discussed on p. 293.

VISITING

If you are attending an institution outside the USM, you must apply for admission to UMGC.

If you are a degree-seeking student in good academic standing in an approved graduate program at another University System of Maryland institution and wish to take courses at UMGC, you need not apply for admission to UMGC. Instead, you must obtain an interinstitutional enrollment form from your home institution, complete it, and submit it to admissions@umgc.edu.

Your previous coursework will be reviewed by the appropriate UMGC academic department to see if course prerequisites have been met. The number of credits you may take and the transferability of academic work completed at UMGC are determined by your home institution.

Graduate Program-Specific Requirements

DATA ANALYTICS

To be admitted to the Master of Science in Data Analytics program, you must meet the standard criteria for graduate admission (detailed on p. 7) and provide one of the following:

- An official transcript reflecting completion of coursework at the 200-level or higher in statistics and computer programming from a regionally accredited college or university with a minimum grade of B (Credit from other accredited universities will be considered on a case by-case basis.)
- Proof of industry certification, such as IBM certification in Cognos, Risk Analytics, SPSS, SAS, Microsoft, Certified Analytics Professional, Certified Business Intelligence Professional, or Certified Health Data Analyst

Note: The complete admission file must be reviewed before you may enroll in any program course.

TEACHING

To be admitted to the Master of Arts in Teaching (MAT) program, you must meet the standard criteria for graduate admission (detailed on p. 7) and provide the following:

- Official transcripts in the original sealed envelopes demonstrating all of the following:
 - Completion of a major in one of the content areas set forth at umgc.edu/MAT for which certification will be sought (or, subject to UMGC approval, 30 credits in content-related courses)
 - A cumulative GPA of 2.75 or higher in content area coursework
- Proof of a qualifying composite test score on the Praxis CORE Assessment test or a qualifying composite score on the Praxis I, SAT, ACT, or GRE. Titles and qualifying scores for these exams can be found at the Maryland State Department of Education at marylandpublicschools.org/about/Pages/DEE/Certification/testing_info/praxis1.aspx.

Depending on your content area, you may also need to provide further documentation, as follows:

- If you are looking to teach computer science and your degree or coursework is older than five years, you must take the Praxis II content exam for computer science (5652) and submit a qualifying test score (149) to apply to the MAT program, in addition to submitting a qualifying test score on any one of the Maryland basic skills tests.
- If you are looking to teach a foreign language, you must also submit scores on the ACTFL Oral Proficiency Interview and Written Proficiency Test.

You can find the deadlines for application to the MAT program, information on how to submit test scores, and information on how to conduct a self-assessment of your transcript for your preferred content area at umgc.edu/MAT. Note that UMGC's education department will make the determination regarding admission to the program.

Residents of Kentucky may be admitted on a case-by-case basis only.

Note: The complete admission file must be reviewed before you may enroll in any program course.

ABOUT STUDY AT UMGC

TRANSFORMATIONAL LEADERSHIP

To be admitted to the Master of Science in Transformational Leadership program, you must meet the standard criteria for graduate admission and provide documentation demonstrating that you belong to one of the following military populations:

- Full-time active-duty members of the U.S. Armed Forces
- Members of the National Guard
- Reservists
- Veterans of the U.S. Armed Forces
- Commissioned Corps members of the U.S. Public Health Service
- Commissioned Corps members of the National Oceanic and Atmospheric Administration

General Requirements for the Doctoral Degree Program

Admission to the Doctor of Business Administration (DBA) program is competitive. Meeting or exceeding the eligibility standards does not guarantee admission.

To apply to the DBA program, you must have a master's degree in an appropriate field of study. You cannot enroll in the prerequisite course DBA 600 until your application has been reviewed and accepted by the department.

You are required to complete DBA 600 with a grade of B or higher for full admission to the program.

The doctoral program requires a brief residency at UMGC in Adelphi each semester. If you are residing outside the United States, you may be required to affirm as part of the admission process that you understand the program's residency requirement. It is your responsibility to ensure that you can enter the United States each term to complete the on-site residencies. UMGC cannot advise you on the process or the requirements for entering the United States. If you have questions, you should contact the U.S. embassy in your home country for information.

Special Situations

Applicants Educated Abroad

If you are applying for admission to an undergraduate program and you graduated from a high school not located in the United States or one of the countries listed at umgc.edu/internationalstudent, you must demonstrate English language proficiency in one of the following ways:

- Certifying on the admission application that you earned a passing score on a U.S. GED test
- Certifying on the admission application that you earned at least 24 credits from an accredited U.S. institution or from an institution in one of the countries listed at umgc.edu/internationalstudent
- Submitting a passing score on an English proficiency examination (listed below)

If you are applying for admission to a graduate or doctoral program and you obtained a bachelor's or master's degree from an institution not located in the United States or one of the countries listed at umgc.edu/internationalstudent, you must demonstrate English language proficiency in one of the following ways:

- Submitting transcript(s) indicating completion of at least 12 credits of graduate coursework, taken within the last two years with a grade of B or higher from an accredited institution in the United States, which will be considered on a case-by-case basis
- Submitting a passing score on an English proficiency examination (listed below)

For all programs, the following examination scores will be accepted as proof of English proficiency:

- A minimum score of 79 on the internet-based version of the Test of English as a Foreign Language (TOEFL)
- A minimum score of 550 on the paper-based version of the TOEFL and a minimum score of 4 on the Test of Written English (TWE)
- A minimum overall score of 6.5 on the International English Language Testing System (IELTS), including the academic writing and academic reading modules
- A minimum grade of Pre-1 on the Eiken Test in Practical English Proficiency

If you are providing test scores to demonstrate English proficiency, you must arrange to have the official score reports sent directly from the testing agency to UMGC and marked Incoming Transcripts. The TOEFL score recovery code for UMGC is 5804.

Test scores must be less than two years old. If you are applying to an undergraduate program, you may seek an exception for scores that are more than two years old. Alternative evidence may be accepted as demonstrating English proficiency. Contact Admissions at admissions@umgc.edu for more information. See Admission Procedures for additional requirements.

Note: UMGC does not issue Form I-20 A-B Certificate of Eligibility for F-1 student status.

ABOUT STUDY AT UMGC

Applicants Expelled or Suspended from Another Institution

FOR ACADEMIC MISCONDUCT

If you were expelled for academic misconduct from any institution in the USM, you are not eligible for admission to UMGC; if you were suspended for that reason, you are not eligible for admission during the period of your suspension.

If you were expelled or suspended for academic misconduct from an institution outside the USM, your case must be reviewed before an admission decision can be made.

FOR DISCIPLINARY MISCONDUCT

If you were suspended from a USM institution under USM's Event-Related Misconduct Policy, you will not be admitted to UMGC during the term of your suspension. If you were expelled under that policy, you will not be admitted to UMGC for one year from the effective date of the expulsion. After that time, you may be considered for admission on a case-by-case basis.

If you were expelled or suspended from a non-USM institution for any type of disciplinary misconduct or you were expelled or suspended from a USM institution for disciplinary misconduct that was not event-related, you may be considered for admission on a case-by-case basis.

High School Students Seeking Concurrent Enrollment

If you have not completed high school but are currently attending a U.S. regionally accredited or state-approved high school, you may be admitted as a provisional student if you provide written permission from the appropriate officials at your high school and a high school transcript reflecting superior scholarship and college readiness, as determined by UMGC in its review of this documentation.

If you are currently being homeschooled or attending an alternative high school program, you may qualify for concurrent enrollment if your homeschool or alternative high school program complies with applicable state and local education regulations.

As a concurrently enrolled student, you are assigned provisional and non-degree-seeking status. Once you meet all the general admission requirements, you may contact an advisor to request to be changed to regular and degree-seeking status.

Admission Procedures

To apply for admission, you must complete an admission application online at umgc.edu/apply and pay the nonrefundable fee. Documentation required for proof of English proficiency is detailed under Applicants Educated Abroad. Other required documentation for various populations is detailed in the following sections.

If you are a former UMGC student and have not attended UMGC for at least two years, you must submit a new application before you will be allowed to register. However, you will not be required to pay another application fee.

Applicants or current students who submit false information on their application may be subject to disciplinary action, as detailed in UMGC Policy 151.00 Code of Student Conduct (available at umgc.edu/policies).

Applicants to Undergraduate Certificate and Associate and Bachelor's Degree Programs

Once you are admitted to UMGC, you will be assigned an admit term (the academic term in which you are officially admitted, e.g., fall 2020), which will be reflected in your MyUMGC student portal. You have until the end of the term following your admit term to submit documentation to verify your eligibility for admission to UMGC. If you do not submit the documentation by that deadline, you will not be permitted to register for subsequent terms until documentation is received and accepted by UMGC.

You must submit the following documentation:

- If you graduated from a state-approved or regionally accredited high school, submit an official transcript from that school.
- If you completed a state high school equivalency exam, such as the GED, submit an official score report.
- If you graduated from a homeschool or alternative high school program, submit documentation showing high school completion and compliance with state and local education regulations for the state in which you were homeschooled or attended an alternative high school program.
- If you graduated from a non-U.S. high school, submit documentation of your education to a UMGC-approved international credit evaluation agency and have the credit evaluation agency submit its recommendations to UMGC. For a list of UMGC-approved international credit evaluation agencies, see umgc.edu/internationalcredit.
- If you graduated from high school and have completed at least 30 college-level credits, you are not required to submit documentation of high school graduation if you submit official documentation of at least 30 completed college-level credits from one or more of the following sources:

ABOUT STUDY AT UMGC

- UMGC-approved two- and four-year colleges and universities
- Professional noncollegiate coursework
- Military occupational specialties and experience
- Vocational and technical coursework
- Professional or technical coursework based on statewide agreements and alliances
- If you have not graduated from high school but have completed an associate degree or higher or at least 60 college-level credits, submit official documentation of the completed degree or at least 60 college-level credits from one or more of the sources listed above.

You need not submit proof of standard examinations.

Applicants to Graduate Certificate and Master's Degree Programs

To be admitted to most graduate programs or to take graduate courses without pursuing a degree, you must submit official transcripts demonstrating completion of a bachelor's degree from a regionally accredited degree-granting university or college or other accredited institution (approved by UMGC on a case-by-case basis) by the last day of your first term of enrollment at UMGC.

Until the university receives your official transcript(s) and verifies your completion of a bachelor's degree, you are limited to enrolling in no more than 6 credits of graduate coursework. Failure to submit official transcripts by the last day of your first term of enrollment at UMGC will prevent you from enrolling in additional graduate courses at UMGC until such transcripts are submitted and verified by UMGC.

Some master's degree programs require the submission of official transcripts before you can be admitted and enroll in classes. These programs have specific admission requirements and/or prerequisite coursework, described under Graduate Program-Specific Requirements and on the UMGC website. A list of the programs that require submission of a transcript before admission is available at umgc.edu/admission-transcript.

Applicants to the Doctoral Program

If you are applying for admission to a doctoral program, you must submit the following before posted deadlines:

- An official transcript indicating completion of a master's degree or higher from a regionally accredited university or college (Equivalent degrees from other accredited institutions may be considered on a case-by-case basis.)
- An up-to-date résumé indicating professional leadership and management experience

- Two letters of reference (professional or academic)
- A personal statement that outlines your interest in doctoral study and future goals
- Two reviews of scholarly, peer-reviewed, academic research-based articles that pertain to your area of interest in management research (Guidelines for article reviews are outlined at umgc.edu/dba.)

The complete admission file must be reviewed and accepted by UMGC before you can enroll in DBA 600.

Military-Affiliated Students

Most military servicemembers may apply to all UMGC programs online via MyUMGC at umgc.edu/apply. However, if you are serving on active duty in the U.S. Army or are a member of the Army National Guard or Army Selected Reserves and intend to use military tuition assistance (TA) benefits, you must use the Common Admissions Application through the GoArmyEd portal (GoArmyEd.com) to apply for admission to UMGC.

Note: If you intend to use military TA benefits, you must contact your educational services officer or counselor within your branch of service for details on eligibility and your military branch's process for submitting TA forms *before* you submit an application for admission to UMGC.

RELOCATING BETWEEN UMGC DIVISIONS

It is important that you notify UMGC when you are relocating to a new duty station, so that residency classification and tuition rate may be accurately determined.

If you plan to relocate from one UMGC division (stateside, Europe, or Asia) to another and you have attended classes with UMGC within the last two years, you must complete and submit a Relocation Form before the start date of the term in which you intend to begin study at the new division. This form may be accessed via the MyUMGC student portal under Helpful Links. There is no fee for relocations. If you have not attended UMGC within the last two years, you will need to complete the regular UMGC admission application and indicate the division that you wish to attend by answering the questions presented.

Active-duty Army, Army National Guard, and Army Reserves servicemembers who are using TA do not need to complete the Relocation Form but must change their home school through the GoArmyEd Portal.

Students Seeking Readmission

If you have not enrolled in classes at UMGC for a period of two years (six or eight terms, depending on the program) or more, you must reapply for admission before you will be allowed to resume enrollment. However, you need not pay another application fee.

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Refer to the requirements section of the degree or certificate you plan to pursue for information on continuous enrollment and the requirements you must follow.

If you have been academically dismissed, you may not register for classes. For more information on reinstatement after academic dismissal, see p. 289. Reinstatement is not guaranteed and does not apply to the doctoral program.

MILITARY SERVICEMEMBERS SEEKING READMISSION

If you discontinued your studies with UMGC because of your military service obligations and would like to return as a UMGC student, contact military@umgc.edu within three years after completion of military service to seek readmission. The cumulative length of all absences for military service time may not exceed five years. If the program in which you were enrolled no longer exists, UMGC will enroll you in the most similar program, unless you request or agree to a different program.

Unless precluded by military necessity, you should provide oral or written notice of a service obligation to Military Advising at military@umgc.edu or 240-684-2105 or 877-275-8682 as far in advance as possible. Refer to UMGC Policy 210.12 Readmission for Military Servicemembers at umgc.edu/policies for more information.

Students Changing Programs

If you are considering a change to your major, minor, or certificate at the undergraduate level or a change from one master's degree program, specialization, or certificate program to another at the graduate level, you must first consult an advisor, who can help you determine the impact of changing degree programs.

The advisor can determine whether another application is required and whether any previous credit is likely to apply, as well as when you may begin to take classes in the new program. Generally, the requirements for completing your new program are those in place when you start study in the new program.

After speaking with an advisor, send an email request to Advising at studentsfirst@umgc.edu, including your name, student ID number, current program, and requested program.

If you are a servicemember in the Army, using tuition assistance and the GoArmyEd portal, you will need to contact your Army education counselor to change your major or minor. If you are using veterans education benefits or transferred benefits, you are required to submit certain forms to the Veterans Administration. Refer to umgc.edu/major-change for more information.

Cross-Enrollment Between Programs

You may be admitted either as an undergraduate or graduate student, but you may not hold both classifications simultaneously. Generally, you are not eligible to enroll in courses outside your degree program. However, if UMGC has developed a vertical pathway between undergraduate and graduate programs, specific courses may apply to both of the degree programs. In such cases, you are eligible to cross-enroll and will be charged the undergraduate rate for undergraduate courses and the graduate rate for graduate courses.

As a graduate student, you may be enrolled in only one master's degree program at a time, and you may not enroll in courses outside your degree program. If you change graduate degree programs, you may not enroll in courses in the new degree program until the current term is completed.

Golden Identification Program for Senior Citizens

The Golden Identification program allows qualified senior citizens to register for up to a total of 7 credits per term, on a space-available basis, without paying tuition. All other fees apply. Tuition charges associated with portfolio assessment and credit by examination will not be waived.

To qualify for the Golden Identification program, you must meet all of the following criteria:

- Reside in Maryland
- Be a U.S. citizen or permanent resident
- Be 60 years of age by the beginning of the term for which you are applying
- Not be employed more than 20 hours a week

The Golden ID tuition waiver does not apply to specialty program courses (listed at umgc.edu/tuition); the doctoral program; 800-level courses; or noncredit courses. More information on this program is available online at umgc.edu/goldenid.

You are required to apply for admission to UMGC, meet UMGC's admission criteria, and provide additional documentation to qualify for the Golden ID tuition waiver. To apply, go to umgc.edu/apply.

ABOUT STUDY AT UMGC

Enrollment Information

Ways to Register

Registration begins each session as soon as the course schedule becomes available on the web and continues until the deadline listed. Check the current online schedule of classes (umgc.edu/schedule) and academic calendar (umgc.edu/calendar) for registration information.

UMGC offers a number of ways to register for most courses, including online (via MyUMGC) and on-site registration. Detailed information and instructions are available each session online at umgc.edu/register.

Registration for Army Students

If you are serving on active duty in the U.S. Army or are a member of the Army National Guard or Army Selected Reserves and intend to use military tuition assistance (TA) benefits, you must register for courses through the GoArmyEd portal (GoArmyEd.com). If you are not using TA benefits, you may choose the self-funded payment option through the GoArmyEd portal, but you will need to provide payment directly to the university through MyUMGC.

Schedule Adjustments

The university reserves the right to make changes to class sections to ensure that such sections are adequately sized to create an appropriate learning environment. Such class section changes include changing faculty members and moving students between course sections to balance enrollments.

Waiting List

If a hybrid class is already full at the time of registration, you can place your name on a waiting list for that class.

Regardless of how you register, the following procedures apply:

- You may put your name on the waiting list for up to six hybrid classes or sections.
- You may not attend a hybrid class for which you are on the waiting list.
- If you are already enrolled in a different section of the same class for which you are waitlisted, you will not be enrolled in the waitlisted section even if space becomes available.
- If you are already enrolled in the maximum number of allowable credits and you are on a waiting list for another course, you will not be registered in the additional course even if space becomes available in the class.
- Faculty members and academic advisors are not authorized to add you to a closed class.

- If a space becomes available and you are the next person on the waiting list, you will automatically be registered for that class, and the charge will appear on your account. You will be notified of the enrollment by email. If you are ineligible for enrollment (because you have not met prerequisites or are enrolled in another class that conflicts in time), the space will go to the next person on the waiting list.
- If you no longer want to enroll in the class, you should remove your name from the waiting list to prevent the possibility of being automatically enrolled.

The waiting list option is not available for online classes.

Priority Enrollment for Veterans

If you have a past-due balance, you may be disenrolled from one or all of your UMGC courses. An exception may apply if you are receiving veterans education benefits. Once you have completed the steps to request certification of your enrollments for veterans benefits, and if your benefit type pays directly to the school, you will be excluded from disenrollment. This exception is designed to allow eligible veterans to enroll while awaiting payment.

Dropping or Withdrawing from Classes

Procedures

To cancel your enrollment in a class without any mark on your transcript (dropping a class), you must access MyUMGC (my.umgc.edu) and follow the steps for dropping a class before the end of the drop period. The dates for the drop period are available on the UMGC website at umgc.edu/academiccalendar.

When you drop a class, all tuition charges for that course are removed from your student account and no mark or record of the course will appear on your transcript.

If you wish to cancel enrollment in a class after the drop period ends (i.e., withdraw from a class), you must access MyUMGC and follow the steps for withdrawing from a class before the end of the withdrawal period. (GoArmyEd students must withdraw through the GoArmyEd portal.) The dates for the withdrawal period are also available at umgc.edu/academiccalendar.

Withdrawing from a class will result in a mark of W (described on p. 287) on your academic transcript. You may be refunded a portion of your tuition based on the withdraw date and the refund schedule posted at umgc.edu/refunds. You will be responsible for any remaining tuition due.

You should be careful to note deadlines according to your class format (online or hybrid/on-site) and division (stateside, Europe, or Asia).

ABOUT STUDY AT UMGC

Failure to drop or withdraw from a class in the appropriate manner or by the posted deadlines may result in your receiving a failing grade and forfeiting any refund. The following actions do not constitute dropping or withdrawing from a course:

- Stopping payment on checks
- Nonpayment of tuition charges
- Never attending or participating in a class
- Ceasing to attend or participate in a class

Effect on Student Aid

If you are using financial aid and/or veterans benefits, you are strongly encouraged to contact the Financial Aid Office or Veterans Advising before you drop or withdraw from a class to fully understand the impact of such an action on your current and future financial aid awards and/or veterans benefits.

If you are using military tuition assistance, you must contact your military education counselor or education services officer for guidance on withdrawals related to emergencies or official duty requirements before dropping or withdrawing from a class to fully understand the impact of such an action on your current and future military tuition assistance benefits.

Ways of Earning Credit

UMGC excels in combining access with academic quality. It opens doors to learning by bringing education to you wherever you may be.

Because UMGC understands the importance of lifelong learning, it has established academic policies that encourage the appropriate use of transfer credit from other institutions as well as credit from less traditional sources. Recognizing that adult students bring to the university not only a willingness to learn but also an educational history informed by experiential learning, UMGC incorporates the assessment of nontraditional learning (i.e., learning gained outside the classroom) into the evaluation of student competencies and academic credit.

Transfer Credit from Outside Sources

Undergraduate Transfer Credit

UMGC accepts undergraduate credit from a variety of outside sources. Sources include

- Regionally accredited two- and four-year colleges and universities and other accredited institutions, including vocational and technical colleges, that have been approved by UMGC
- Other higher education institutions with which UMGC has an articulation agreement for acceptance of credit and/or a joint program

- Non-U.S. institutions, based on UMGC review of the report of an international credit evaluation agency approved by UMGC
- High schools with which UMGC has an articulation agreement for acceptance of credit
- Corporate training or coursework; military occupational specialties, training, and experience; vocational and technical organizations; and industry certifications evaluated by nationally recognized credit evaluation agencies, such as the American Council for Education (ACE) or National College Credit Recommendation Service (NCCRS), or evaluated and approved by UMGC
- Standardized examinations (listed on p. 19)

Criteria for each type of credit are detailed in the following sections.

Be sure to discuss all previous experience and training with an advisor to ensure that you request evaluation from all the sources that are available to you.

CREDIT LIMITS

Credit transferred from outside sources is subject to maximum allowances, including

- 70 credits from two-year institutions toward the bachelor's degree
- 45 credits from two-year institutions toward the associate degree
- 90 credits from all sources combined toward the bachelor's degree
- 45 credits from all sources combined toward the associate degree

No more than half the credits required (usually 8 or 9 credits) from all sources combined may be applied to a certificate program.

SOURCES, REQUIREMENTS, AND RESTRICTIONS

If you have earned credit at another college or university, you are responsible for determining whether courses you plan to take at UMGC would duplicate any previously earned credit and for submitting all official transcripts from colleges and universities you attended, as well as documentation of military and professional learning and pertinent test scores (CLEP, AP, etc.)—regardless of whether they appear on a previous college transcript or not.

UMGC does not accept transfer credits for remedial, precollege, or sectarian religious courses. If you plan to transfer credit from other institutions to UMGC, you may request an evaluation of your previous credit and experience to determine whether UMGC will accept transfer credit and how those credits may apply to a degree from UMGC. Official transcripts are required for UMGC to evaluate and award transfer credit. For nontraditional sources of credit, other documentation is required as set forth in the sections that follow.

If you are in doubt about whether a UMGC course duplicates previous study, you should consult an advisor before registering.

ABOUT STUDY AT UMGC

More information on the process of transferring credit is provided on p. 306 and online at umgc.edu/transcripts. UMGC Policy 210.18 Undergraduate Transfer Credit Evaluation and Appeal Process and UMGC Policy 210.17 Graduate Transfer Credit Evaluation and Appeal Process are available at umgc.edu/policies.

Credit from Other Colleges and Universities

Transfer credits from approved two- and four-year colleges and universities for courses in which you earned a grade of at least C (2.0) may be accepted for courses that apply to your undergraduate degree program and do not duplicate other courses for which credit has been awarded. Transfer credit for another institution's course challenge examinations and prior learning program may be accepted if it is listed on your transcript with a passing grade.

Approved Institutions for Undergraduate Transfer Credit

Approved institutions include those accredited by the following regional associations:

- Higher Learning Commission
- Middle States Commission on Higher Education
- New England Commission of Higher Education
- Northwest Commission on Colleges and Universities
- Southern Association of Colleges and Schools Commission on Colleges
- Western Association of Schools and Colleges, Accrediting Commission for Community and Junior Colleges
- Western Association of Schools and Colleges Senior Colleges and Universities Commission

Credit from other accredited institutions may be approved on a case-by-case basis.

Credit from Community Colleges, Junior Colleges, and Vocational and Technical Colleges

A total of 70 credits from approved two-year institutions (community colleges, junior colleges, or vocational and technical colleges) may be applied toward a bachelor's degree at UMGC. If you have already completed 70 credits, you may not apply further credit from a two-year institution to a degree from UMGC.

If you initially enrolled in any of the public community colleges in Maryland, general education credit is transferred in conformance with the policy developed and approved by the Maryland Higher Education Commission, subject to any limitations under federal law. (Details are given on p. 306.) If you have participated or are participating in one of the community college alliances with UMGC and plan to enroll in courses at both institutions concurrently, you should consult with advisors at both institutions.

Credit from Military Institutions or Military Experience

UMGC grants credit for military experience, military service occupations, and military training offered by the U.S. Armed Forces or military institutions 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*. Courses taken at accredited military institutions may also be accepted as part of an articulation agreement. Such credit is granted only if it is applicable to your chosen degree program; it must meet other UMGC requirements for transfer credit and is subject to the same limitations as those placed on nonmilitary credit. UMGC generally accepts ACE recommendations for lower- and upper-level credit.

Credit from Community College of the Air Force

UMGC awards undergraduate 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 your chosen degree program at UMGC, must meet other UMGC requirements for transfer credit, and are subject to the same limitations as those placed on nonmilitary credit. The following conditions apply:

- All credit from the CCAF is lower level.
- Since the CCAF records satisfactorily completed courses as S (satisfactory) and specifies that S equals a grade of C or higher, credit may be applied to your undergraduate UMGC degree program as determined by UMGC.
- Courses that are vocational or technical may be used only as electives in an undergraduate degree program.

Credit from Institutions Outside the United States

Study at institutions outside the United States must be evaluated by an approved international credit evaluation agency to be considered for transfer credit.

If you are seeking a review of potential transfer credit from a non-U.S. postsecondary educational institution, you must

- Mail your official international transcripts to an approved credit evaluation agency (listed at umgc.edu/internationalcredit)
- Pay fees associated with the international evaluation

More details are available online at umgc.edu/internationalcredit.

Credit from Noncollegiate Courses and Training

UMGC may accept for credit noncollegiate courses and training applicable to your degree program that have been evaluated by either ACE (if the courses have been given credit recommendations in the *National Guide to Educational Credit for Training Programs*) or the National College Credit Recommendation Service (formerly PONSI).

ABOUT STUDY AT UMGC

INITIAL ESTIMATE OF TRANSFER CREDIT

You can have a review of your potential transfer credit done by an academic advisor. This review provides an estimate of the academic credit UMGC might accept toward a particular degree and of the requirements that would remain to be fulfilled. This review is not binding on either you or UMGC and is subject to change.

Graduate Transfer Credit

The Doctor of Business Administration and Master of Science in Data Analytics programs do not accept transfer credit.

FOR MOST GRADUATE PROGRAMS

Up to 6 credits of graduate coursework may be considered for transfer to graduate degree programs at UMGC that do not require DCL 600, PRO 600, or CBR 600, if the credits were earned at an approved institution and if they are applicable to your program of study. Up to 3 graduate credits may be accepted in transfer for a graduate certificate program.

UMGC may accept more than the usual maximum of 6 credits toward a degree program (or 3 credits for a certificate program) based on agreements with third parties. Decisions regarding your eligibility to enter a graduate program and receive transfer credit based on agreements with third parties are made at the time of admission and may not be made retroactive after enrollment.

Graduate credits offered for transfer credit must meet the following criteria:

- The credits must have been earned as graduate credit.
- The credits must have been awarded within the time limit for the degree or certificate.
- You must have earned a grade of B (3.0) or higher in the courses considered for transfer. (However, these grades are not included in the calculation of your grade point average.)
- The department advisor and the program chair must have determined that the transfer courses are relevant to your program of study.
- The credits must have been earned at an approved institution and be equivalent to graduate-level coursework or recommended for graduate-level credit by the American Council on Education (ACE) or other nationally recognized bodies or as part of an approved articulation agreement.

FOR PROGRAMS THAT REQUIRE CBR 600, DCL 600, OR PRO 600

Up to 6 credits of graduate coursework may be considered for transfer as replacement for CBR 600, DCL 600, or PRO 600, if earned at an approved institution.

If you have previously earned a master's degree from an approved institution, you are eligible to receive transfer credit for CBR 600, DCL 600, or PRO 600 in recognition of the fundamental competencies essential for successful completion of a graduate degree program. If you have earned graduate credit but have not earned a master's degree, you may request a review of transfer credit for CBR 600, DCL 600, or PRO 600.

All graduate credits offered for transfer credit in replacement of CBR 600, DCL 600, or PRO 600 must meet the following criteria and are reviewed for approval:

- Credits must have been earned as graduate credit.
- A grade of B or higher must have been earned in the courses considered for transfer. These grades, however, will not be included in the calculation of the grade point average at UMGC.
- Credits must have been earned at an approved institution and be equivalent to graduate-level coursework or recommended for graduate-level credit by ACE.

APPROVED INSTITUTIONS FOR GRADUATE TRANSFER CREDIT

Approved institutions include those accredited by the following regional associations:

- Higher Learning Commission
- Middle States Commission on Higher Education
- New England Commission of Higher Education
- Northwest Commission on Colleges and Universities
- Southern Association of Colleges and Schools Commission on Colleges
- Western Association of Schools and Colleges Senior Colleges and Universities Commission

Credits from other accredited institutions may be approved on a case-by-case basis.

More information is available in UMGC Policy 210.17 Graduate Transfer Credit Evaluation and Appeal Process at umgc.edu/policies.

ABOUT STUDY AT UMGC

Credit Options to Accelerate Degree Progress

Prior Learning

Learning acquired outside the college classroom may be assessed for credit toward an undergraduate degree at UMGC if your work and life experience aligns to an undergraduate course at UMGC, as determined by UMGC. There are several methods to obtain credit for your work and life experience, including Course Challenge, Portfolio Assessment, and a variety of recognized external standardized assessments. Advisors can help you determine the best routes to use in fulfilling any academic plan.

COURSE CHALLENGE

Course Challenge is a comprehensive assessment of the material that is normally presented through a full term-length UMGC undergraduate course. The assessment provides the opportunity for you to establish academic credit for competencies gained outside the classroom for which you have not already earned academic credit.

While some course challenges may consist of a final exam, the challenge can include other requirements based on the course chosen. These can include research papers, computer programs, language tapes, or other documents that exhibit the competency for which you are seeking credit. Requirements are set by the applicable academic department.

If you are an undergraduate degree- or certificate-seeking student at UMGC, have received an academic advisement report, and have a cumulative GPA of at least 2.0 in UMGC coursework, you may be eligible for course challenge. Students enrolled at other USM institutions are not eligible to take UMGC course challenge assessments. Carefully review the fees, rules, procedures, and limitations described at umgc.edu/coursechallenge before requesting a course challenge.

Course Challenge is not intended as a substitute for independent study. Not all courses are available for course challenge. Advisors and Prior Learning office staff can inform you about specific courses that may not be challenged. Only one course in a sequence may be challenged at a time, and you may not challenge a course that is prerequisite for a higher-level course you have already taken. In addition, you may not challenge capstone courses (usually numbered 485 or 495), Workplace Learning courses (numbered 485A/B), CAPL 398A, or EXCL 301. Course challenge assessments may not be taken more than twice and also may not be taken for courses for which you have previously enrolled. Other restrictions may apply.

You may not seek to challenge foreign language courses of your native language, except upper-level courses of your native language when those courses emphasize linguistics, literature, or written translation to and from English. You may not receive credit for 100- or 200-level courses in your native language; other restrictions may apply. Email languages@umgc.edu for additional information on language instruction and course challenge credit.

Credit earned by course challenge is assigned a letter grade that is computed in your grade point average and may be applied toward a first or second bachelor's degree or toward a certificate.

The fee for a course challenge assessment is the current tuition for the appropriate course. Course challenges may only be canceled before you receive the assessment. Refunds are given only if a suitable assessment cannot be prepared.

Visit the UMGC website at umgc.edu/coursechallenge or call 800-888-8682, ext. 2-2890, for more information.

PORTFOLIO ASSESSMENT

Portfolio Assessment is a unique way for you to articulate and identify learning you have gained from work, community or political involvement, or other noncollegiate experiences and earn credit for it. To be eligible for Portfolio Assessment, you must

- Have been admitted to UMGC as an undergraduate student
- Have a recent copy of your academic advisement report, updated in the last six months by an academic advisor
- Completed an application for Portfolio Assessment

After you are accepted into the program, you must enroll in EXCL 301 Learning Analysis and Planning. EXCL 301 is a 3-credit course in which you prepare a portfolio describing and documenting the learning you have gained from past experiences and how it aligns to a particular UMGC course. Because EXCL 301 is a demanding and complex course, UMGC recommends that you should not register for more than one other course during the session in which you are enrolled in EXCL 301 if you are enrolled part-time.

EXCL 301 is graded on an S/D/F basis (explained on p. 286). If the quality of your work in the portfolio merits a grade of C or higher, a grade of S is awarded and the portfolio is forwarded for credit evaluation. Faculty members from the appropriate disciplines assess the portfolio and recommend whether to award credits. Credit earned as a result of portfolio evaluation also earns a grade of S. The S grade is not computed in the grade point average and is not applicable toward honors.

ABOUT STUDY AT UMGC

If the quality of your work in the portfolio merits a grade of D or lower, the portfolio will not be forwarded for credit evaluation.

If you successfully complete EXCL 301 with a grade of S and submit a portfolio for evaluation, you may enroll in a supplemental class (EXCL X001) to complete additional portfolios. The supplemental class may be taken more than once, but it confers no credit and may not be applied toward degree completion. If you take this option, you may not target courses for which you were previously denied credit in EXCL 301 or EXCL X001. Contact the Prior Learning office at priorlearning@umgc.edu for more information.

Portfolio Assessment credits may be awarded at both the upper and lower levels. Credits earned do not fulfill requirements for graded coursework and so may not exceed half the total credits for a major, minor, or certificate.

You may not request or receive credit through Portfolio Assessment for learning for which credit has been awarded by other means. You may not request Portfolio Assessment for 100- and 200-level courses in your native language.

Credit for EXCL 301 is charged at the current tuition rate. Tuition for the course covers evaluation of documentation for up to three courses. Evaluations for courses beyond these first three incur additional fees, which are applicable to all students, including Golden ID students and those receiving financial aid.

You should carefully review the requirements, rules, and procedures for Portfolio Assessment. Visit umgc.edu/priorlearning or call 800-888-8682, ext. 2-2890, for more information.

Workplace Learning

Workplace Learning offers an opportunity for you to gain experience and develop new knowledge and skills in your chosen undergraduate discipline while you earn upper-level college credit through an integrated model that combines new learning opportunities with academic assignments, putting theory into practice and enabling you to accelerate progress on both your academic and career goals.

To be eligible for Workplace Learning, you must

- Be an undergraduate student at UMGC
- Have completed 30 credits, including transfer credit, toward a degree (if you are seeking a degree)
- Have completed at least 9 credits in the discipline in which you plan to do your Workplace Learning project
- Have completed at least 6 credits at UMGC
- Have a GPA of 2.0 or higher at UMGC
- Have submitted all official transcripts and contacted an academic advisor to request an official evaluation

- Be working in a position or have identified an opportunity to work in a position that allows you to apply classroom theory to practical projects that involve significant analysis and problem solving and are directly related to a given academic discipline. The position should allow you to have new learning experiences; Workplace Learning will not be approved for day-to-day work tasks that have already been mastered. (Position may be paid or unpaid, part- or full-time.)

To participate in Workplace Learning, you must first apply to Workplace Learning by the deadline published in the MyUMGC student portal. Once you are notified of your eligibility, you must develop a learning proposal that identifies several project tasks representing the new learning to be acquired as a result of the work experience. A UMGC faculty member in the appropriate discipline will review your learning proposal to ensure that it constitutes upper-level college learning. If your learning proposal is approved, you will be given permission to register for Workplace Learning. Your learning proposal is then developed into a three-way learning contract among your employer, you, and your faculty mentor.

Throughout the Workplace Learning experience, you work under the supervision of your employer on completing several of the identified project tasks. You will also work with your faculty mentor on completing the academic assignments required to earn college credit for your work experience. The project tasks for the employer constitute the course content, which is augmented by the reflective academic assignments written for review by the faculty mentor. You are required to communicate regularly with your faculty mentor throughout the Workplace Learning session, which typically lasts 15 weeks.

You may earn either 3 or 6 credits during the Workplace Learning session. To earn 3 credits, you must devote at least 12 hours per week to tasks providing new learning (for a total of 180 hours during the Workplace Learning session) and complete a minimum of four project tasks identified in the learning contract. To earn 6 credits, you must devote at least 20 hours per week to project tasks (for a total of 300 hours during the Workplace Learning session) and complete five to eight project tasks identified in the learning contract.

Workplace Learning projects may be developed in all undergraduate disciplines. Courses are listed in the UMGC catalog with the designator of the discipline and numbered 486A (for 3 credits) or 486B (for 6 credits). For example, a 3-credit Workplace Learning course in business and management would be listed as BMGT 486A, a 6-credit course as BMGT 486B. Tuition for the Workplace Learning course is charged at the current rate per credit, and an administrative fee is charged each time you enroll.

ABOUT STUDY AT UMGC

Workplace Learning courses may not be used to satisfy general education requirements or (unless otherwise specified) required academic coursework in your major. However, Workplace Learning credits may be applied to electives as well as to designated upper-level requirements in the major or minor. A standard letter grade is awarded for successful completion of Workplace Learning courses. It is strongly recommended that you consult with a UMGC advisor to determine how Workplace Learning credits may help you fulfill degree requirements.

Review the information, policies, and procedures detailed online at umgc.edu/wkpl or email workplacelearning@umgc.edu for assistance.

Credit by Examination

UMGC may award credit toward an undergraduate degree or certificate for various external standardized examinations, provided that there is no duplication of other academic credit and the scores presented meet UMGC standards.

Examinations may include

- Advanced Placement examinations administered by the College Board
- Cambridge International Examinations
- College-Level Examination Program (CLEP) examinations
- DANTES Subject Standardized Test (DSST) examinations
- Excelsior College Examinations (formerly called ACT/PEP and Regents examinations)
- International Baccalaureate exam
- Approved industry certification examinations (listed online at umgc.edu/creditbyexam)

UMGC also accepts credit for the following:

- Various professional examinations evaluated by the ACE or the National College Credit Recommendation Services (NCCRS)
- Examinations offered by other approved colleges and universities that appear on an official transcript, as approved on a case-by-case basis

If you intend to transfer exam credit that was awarded at another institution, you must have a transcript of those scores sent directly to UMGC from the examining body. When those scores have been received, an advisor will determine whether they meet the standards established at UMGC for granting credit and how much credit may be awarded. Credit earned through examinations may be used to fulfill major, minor, general education, or elective requirements, as applicable.

Consult an advisor or visit umgc.edu/creditbyexam for more information about credit by examination.

Vertical Pathways Between UMGC Undergraduate and Graduate Degree Programs

If you completed your undergraduate degree at UMGC in accounting, computer networks and cybersecurity, computer science, criminal justice, English, history, or social science or completed coursework in emergency management or homeland security, vertical pathways between UMGC's undergraduate and graduate programs in these areas allow you to reduce your total coursework for certain related graduate degrees. Details on each of these agreements are provided below.

Eligible credits for most pathways must have been completed no earlier than two years before the beginning of graduate studies at UMGC; stricter requirements may be listed under individual pathways.

Graduate admission requirements and time limits for degree completion apply to all applicants.

ACCOUNTING

If you completed your undergraduate degree at UMGC with coursework in accounting, a vertical pathway between UMGC undergraduate and graduate programs in accounting allows you to reduce your total coursework for a related graduate degree by up to 6 credits.

The following undergraduate courses will be accepted as credit toward the courses listed below in the Master of Science in Accounting and Financial Management, Accounting and Information Systems, or Management with a specialization in accounting for a maximum of 6 credits:

- ACCT 438 Fraud and Forensic Accounting and ACCT 440 Forensic and Investigative Accounting instead of ACCT 630 Fraud Examination
- ACCT 422 Auditing Theory and Practice and ACCT 436 Internal Auditing instead of ACCT 628 Auditing
- ACCT 323 Federal Income Tax I and ACCT 417 Federal Income Tax II instead of ACCT 613 Federal Income Taxation

The substitutions listed above are the only ones possible. Note that a minimum grade of B must be earned in each undergraduate course for the credits to be accepted at the graduate level.

ABOUT STUDY AT UMGC

CRIMINAL JUSTICE

If you completed your undergraduate degree at UMGC with coursework in criminal justice, a vertical pathway between UMGC undergraduate and graduate programs in criminal justice allows you to reduce your total coursework for the related graduate degree by up to 6 credits (two courses).

The following undergraduate courses will be accepted as credit toward the courses listed below in the Master of Science in Management with a specialization in criminal justice management for a maximum of 6 credits:

- CCJS 495 Issues in Criminal Justice instead of CJMS 600 Critical Analysis of the Criminal Justice System
- CCJS 497 Correctional Administration instead of CJMS 620 Issues in Correctional Administration

The substitutions listed above are the only ones possible. Note that a minimum grade of B must be earned in each undergraduate course for the credits to be accepted at the graduate level.

CYBERSECURITY

If you completed your undergraduate degree at UMGC with a major in computer networks and cybersecurity, a vertical pathway between UMGC undergraduate and graduate programs in cybersecurity allows you to earn 6 credits toward the Master of Science in Cloud Computing Architecture, Cyber Operations, Cybersecurity Management and Policy, Cybersecurity Technology, or Digital Forensics and Cyber Investigation or a certificate in Cloud Computing and Networking, Cyber Operations, Cybersecurity Management and Policy, Cybersecurity Technology, or Digital Forensics and Cyber Investigation.

To be eligible for the pathway, you must have completed CMIT 495 Current Trends and Projects in Computer Networks and Cybersecurity no earlier than spring 2019. If eligible, you may be awarded credit for CBR 600 Communicating, Problem Solving, and Leading in Cybersecurity or DCL 600 Decisive Thinking, Communicating, and Leading. Either CBR 600 or DCL 600 is the only course for which credit may be granted through the vertical pathway.

EMERGENCY MANAGEMENT

If you completed your undergraduate degree at UMGC with coursework in emergency management, a vertical pathway between UMGC undergraduate and graduate programs in emergency management allows you to reduce your total coursework for the related graduate degree by up to 6 credits (two courses).

The following undergraduate courses will be accepted as credit toward the courses listed below in the specialization in emergency management within the Master of Science in Management for a maximum of 6 credits:

- EMGT 302 Concepts in Emergency Management instead of EMAN 600 Comprehensive Crisis and Emergency Management
- EMGT 304 Emergency Response Preparedness and Planning instead of HSMN 630 Resilience Planning and Preparedness for Disaster Response and Recovery

The substitutions listed above are the only ones possible. Note that a minimum grade of B must be earned in each undergraduate course for the credits to be accepted at the graduate level.

HOMELAND SECURITY

If you completed your undergraduate degree at UMGC with coursework in homeland security, a vertical pathway between UMGC undergraduate and graduate programs in homeland security allows you to reduce your total coursework for a related graduate degree by up to 6 credits (two courses).

The following undergraduate courses will be accepted as credit toward the courses listed below in the specialization in homeland security within the Master of Science in either Information Technology or Management for a maximum of 6 credits:

- HMLS 302 Introduction to Homeland Security instead of HSMN 610 Concepts in Homeland Security
- HMLS 408 Infrastructure Security Issues instead of HSMN 625 Critical Infrastructures

The substitutions listed above are the only ones possible. Note that a minimum grade of B must be earned in each undergraduate course for the credits to be accepted at the graduate level.

TEACHING

If you are pursuing a bachelor's degree from UMGC in an appropriate major (computer science, English, history, or social science or a general studies degree with a minimum of a 30-credit specialization in social studies) or have other appropriate coursework (including biology and mathematics coursework), you may reduce the total coursework for the Master of Arts in Teaching (MAT) by up to 12 credits (three courses, including the noncredit introductory course UCSP 615) and complete both degrees with a total of 138 credits of coursework. This accelerated program option allows you to take graduate-level coursework before you complete your undergraduate degree.

ABOUT STUDY AT UMGC

To be eligible for this accelerated MAT option, you must have completed the courses listed below before being accepted to the MAT program. The 500-level courses listed below are the only courses eligible for the 12 articulated credits available through this vertical pathway. If completed with a grade of B or higher, the credits will apply to the MAT program. If successfully completed with a grade of C or lower, these credits apply toward the undergraduate degree only.

- EDTP 500 Professional Fundamentals of Teaching and Learning instead of EDTP 600 Professional Fundamentals of Teaching and Learning
- EDTP 535 Adolescent Development and Learning Needs instead of EDTP 635 Adolescent Development and Learning Needs

The substitutions listed above are the only ones possible.

Educational Relationships

Corporate Alliances

UMGC works to develop strong connections with local and national leaders in business and industry, government, and non-profit organizations and is an important partner in the region's economic development.

UMGC has developed customized programs for employers and organizations across the country and values employers' viewpoints. Consistent with its mission of bringing convenient and relevant learning opportunities to the workforce, UMGC has developed strong relationships with many prominent employers in the area and around the country, including Amazon, Booz Allen Hamilton, and GEICO.

Military Relationships

For more than 70 years, UMGC has proudly served the U.S. military through its educational affiliations in Europe and Asia. Stateside, UMGC participates in the General Education Mobile program and the Air University Associate-to-Baccalaureate Cooperative program. For more information on these programs, see umgc.edu/military or speak to your education counselor.

At the graduate level, UMGC has established special relationships with a number of professional military education institutions: Air War College, Air University, Defense Acquisition University,

Defense Information School, Naval War College, National Defense University Information Resources Management College (iCollege), and Marine Corps College of Distance Education and Training. In most of these educational relationships, you may complete coursework at the military institution as part of the Master of Science in Management or the Master of Science in Information Technology. More information on these educational relationships is available online at umgc.edu/military-and-veterans or by email at militaryportals@umgc.edu.

Community College and Other Higher Education Alliances

UMGC is dedicated to collaboration and cooperation with other Maryland educational institutions, both public and private, and actively seeks relationships with those institutions to benefit Maryland citizens. The university also reaches out through educational collaborations around the world.

UMGC is a charter member of MarylandOnline, a consortium of Maryland community colleges and universities formed to encourage collaboration among institutions across Maryland and to extend resources for the development and delivery of online courses.

In support of the university's mission to extend access to educational opportunities to Maryland's working adult students, UMGC has formed alliances with all 16 Maryland community colleges (listed in the Appendices), enabling students to earn an associate degree at an allied community college and finish a bachelor's degree by completing required coursework at UMGC. These Maryland alliances offer a seamless transition between curricula through linked degree programs. Each of the Maryland community colleges is visited regularly by UMGC representatives. In addition to online options, numerous class locations in Maryland and the Washington, D.C., area enable alliance students to complete bachelor's degrees conveniently close to home. Special UMGC scholarships are also available for graduates of Maryland community colleges.

In addition, UMGC has established alliance agreements with more than 70 community colleges across the United States. More information on these alliances is available online at umgc.edu/alliances.

The university has also developed articulated programs with international educational institutions, including Far East Federal University and Irkutsk State University in Russia and Deakin University in Australia.

ABOUT STUDY AT UMGC

Helping You Get Started

At UMGC, your success as a student is of paramount importance. The university seeks not only to help you fulfill your current education goals, but also to create an educational partnership with you that will last throughout your life.

To that end, UMGC looks first for ways to make it easy for you to get started. Admission policies are designed to simplify the process (standardized tests are not generally required), making it possible for you to apply and register for most programs at the same time. Shorter terms and multiple start dates mean you don't have to wait to take that first class (described on the following page), which is geared to help you transition back to college-level study. Recognizing that financial concerns often present the most challenging obstacle to higher education, UMGC strives to keep tuition costs low and provides numerous financial aid opportunities, including scholarships for military and community college students, to help you find ways to finance your education (described on p. 298). And to help you at every step—from finding the right program, applying for admission, registering for class, and getting academic and career assistance, to applying for your diploma and graduating—services and resources (described on pp. 304–310) are conveniently available online and by phone, as well as on-site at many locations.

Course Formats and Expectations

As a global university, UMGC makes it possible for you to take classes any time, any place, by offering a large selection of online classes, as well as hybrid classes that combine on-site and online instruction that are available at sites throughout Maryland and the Washington, D.C., metropolitan area and at military sites all over the world, for maximum convenience and flexibility.

Hybrid classes typically meet on-site at a UMGC location for a number of sessions per term; the remainder of the teaching and learning in the course occurs in the online classroom. The schedule of on-site sessions is provided online at the beginning of the term. Classes offered in a hybrid format are identified by location in the schedule of classes.

Online courses maintain the same academic standards as hybrid courses. Course content, learning materials, requirements, assignments, and class participation are comparable for online and hybrid courses, and faculty members are engaged and supportive of students in either format.

Both online and hybrid course formats require that you have access to appropriate technology to participate in asynchronous, computer-based class discussions; study groups; online database searches; course evaluations; and other online activities.

Technical Requirements

You must ensure that you have some type of internet access. Barring individual course requirements, this access may be through use of a UMGC computer lab; university or public library; or other readily available, reliable source if you do not have home access. However, such access should be regularly available, and you must have a current email address; you are responsible for your own internet access costs.

Some academic programs may have specific technical requirements, such as requiring you to download and install specific computer programs. To determine if such requirements apply to your program, you should consult the program and course descriptions. For more information about technical requirements, refer to umgc.edu/techreq.

Expectations

Before registering, you may want to consider the following:

- You need to be prepared to write extensively, because nearly all communication is written. You need strong reading and writing skills in English.
- You need to be competent in the use of computers and commonly used software programs.
- Because the online classroom is asynchronous and you are expected to be an active participant, you are encouraged to log in frequently to check what has transpired in your online classroom.
- To be successful, you will need disciplined work habits, effective time management skills, and the ability to work both alone and collaboratively.

First-Term Courses

An array of “first” and preparatory courses are managed by Student Affairs, which is committed to promoting your development and success as a student by providing programs and services that enable you to reach your educational goals. These courses are designed to provide a well-supported and productive start to your academic programs. Faculty members who teach these courses have been selected for their academic credentials as well as for their high degree of engagement and commitment to student success.

Since students come to UMGC with a wide range of academic preparedness and backgrounds in very different fields, the first courses focus on core skills that will prepare you to do well in your succeeding courses and program.

ABOUT STUDY AT UMGC

Required Introductory Courses

UNDERGRADUATE

As a bachelor's degree student, you must start your studies with UMGC with PACE 111 Professional and Career Exploration, preferably within the first 6 credits. This 3-credit course provides an orientation to UMGC and an exploration of how UMGC academic programs align to professional goals and career options. The aim of this course is to enable you to become familiar with the university's academic culture and expectations; learn about UMGC resources for success; reflect on academic and professional goals; and explore opportunities to accelerate your path to degree completion through transfer credit and other prior learning. There are six models of the course to provide focused insight into the fields of business, communications and humanities, multi-disciplinary studies (e.g., any field), public safety, sciences and healthcare, and technology.

If you begin undergraduate study at UMGC with 45 or more transfer credits, you may be eligible to take PACE 100 Professional and Career Exploration for Transfer Students, which is a condensed orientation to UMGC and exploration of how UMGC academic programs align to professional goals and career options. Students who successfully complete this 4-week course will receive the 3 credits equivalent to PACE 111.

GRADUATE

For most master's degree or graduate certificate programs, you must begin your studies with UMGC with UCSP 615 Orientation to Graduate Studies, which is to be taken within the first 6 credits. This noncredit course is designed to help you develop the skills and techniques you need to understand and manage the challenges involved in a graduate program and to familiarize you with research strategies and online library resources—material that is critical for 21st-century professionals.

For master's degrees and graduate certificates that do not require UCSP 615, a 6-credit introductory course tailored toward that academic area is required:

- In the Master of Business Administration program, you are required to take PRO 600 Communicating, Problem Solving, and Leading in Professional Fields.
- In most cybersecurity programs, you are required to take CBR 600 Communicating, Problem Solving, and Leading in Cybersecurity.
- In the Learning Design and Technology, Cyber Operations, Cloud Computing Architecture, Strategic Communications, and Transformational Leadership programs, you are required to take DCL 600 Decisive Thinking, Communicating, and Leading.

Preparatory Courses

UNDERGRADUATE

If you are an undergraduate student, you may find the following courses helpful to your success both during and after your undergraduate studies with UMGC.

LIBS 150 Introduction to Research Library Sciences is a four-week 1-credit course designed to introduce you to the research process and methods for retrieving information in a library or through online sources. The aim is to promote information literacy by providing effective strategies for finding relevant information and evaluating and correctly citing the information found.

CAPL 398A Career Planning Management is a four-week 1-credit course designed to help you prepare for professional advancement or a career change. The aim is to focus on your individual skill sets, networking, and researching career and economic markets to best position yourself to formulate a career path and then develop the necessary resources to reach your career goals.

GRADUATE

As a graduate student, you may find one or more graduate noncredit courses helpful to your development of deeper subject knowledge. Preparatory courses (currently designated UCSP or ASC) are available in computer programming, financial accounting, information technology, writing, and research methods and generally last five to eight weeks. If you have been away from university study for a while or lack current experience in the area, these courses may provide a useful refresher. These courses carry no academic risk and are very reasonably priced. Specific recommendations are provided under Preparation Recommended for Success for each individual program. Although these courses carry no UMGC credit, they are graded on an S/U basis (explained on p. 286) and will appear on your official academic transcript. You must be admitted or have an application on file before registering for any noncredit courses.

OVERVIEW OF ACADEMIC SCHOOLS AND PROGRAMS

The School of Arts and Sciences

Kara Van Dam, PhD
Dean

Randall Hansen, PhD
Associate Dean

sasdean@umgc.edu

Vision

The School of Arts and Sciences is committed to empowering people to make the world a better place through educational advancement.

Mission

Our mission in the School of Arts and Sciences is to be leaders in innovative student-centered learning providing high-quality liberal arts educational experiences to a global community.

Programs of Study

Undergraduate

BACHELOR'S DEGREE PROGRAMS

Majors

- Biotechnology
- Communication Studies
- Criminal Justice
- East Asian Studies
- English
- Environmental Management
- General Studies
- Gerontology and Aging Services
- Graphic Communication
- History
- Homeland Security
- Humanities
- Laboratory Management
- Legal Studies
- Nursing for Registered Nurses
- Political Science
- Psychology
- Public Safety Administration
- Social Science

Minors

- African American Studies
- Art
- Art History
- Biology
- Communication Studies
- Criminal Justice
- Diversity Awareness
- East Asian Studies
- Emergency Management
- English
- Environmental Management
- Fire Service Administration
- Forensics
- Gerontology and Aging Services
- History
- Homeland Security
- Law for Business
- Mathematical Sciences
- Natural Science
- Philosophy

- Political Science
- Psychology
- Public Safety Administration
- Sociology
- Speech Communication
- Terrorism and Critical Infrastructure
- Women's Studies

CERTIFICATE PROGRAM

- Spanish for Business and the Professions

Graduate

MASTER'S DEGREE PROGRAMS

- Biotechnology: Bioinformatics
- Biotechnology: Biosecurity and Biodefense
- Biotechnology: Biotechnology Management
- Biotechnology: Biotechnology Regulatory Affairs
- Distance Education and E-Learning
- Environmental Management
- Information Technology: Homeland Security Management
- Instructional Technology
- Learning Design and Technology
- Management: Criminal Justice Management
- Management: Emergency Management
- Management: Homeland Security Management
- Management: Intelligence Management
- Strategic Communications
- Teaching

CERTIFICATE PROGRAMS

- Bioinformatics
- Homeland Security Management
- Instructional Technology Integration
- Learning Design and Technology
- Strategic Communications

OVERVIEW OF ACADEMIC SCHOOLS AND PROGRAMS

The School of Business

Bryan Booth, PhD

Dean

Anna Seferian, PhD

Associate Dean

busdean@umgc.edu

Vision

The School of Business will be the school where learners acquire innovative business skills that enable them to reach their full potential today and in the future.

Mission

Our mission in the School of Business is to be a leader in career-focused learning that enhances evidence-based decision making in diverse global environments.

Programs of Study

Undergraduate

BACHELOR'S DEGREE PROGRAMS

Majors

- Accounting
- Business Administration
- Finance
- Health Services Management
- Human Resource Management
- Management Studies
- Marketing

Minors

- Accounting
- Business Administration
- Economics
- Finance
- Health Services Management
- Human Resource Management
- Marketing
- Personal Financial Planning
- Small Business Management and Entrepreneurship

CERTIFICATE PROGRAMS

- Digital Marketing
- Human Resource Management
- Management Foundations
- Project Management

Graduate

MASTER'S DEGREE PROGRAMS

- Accounting and Financial Management
- Accounting and Information Systems
- Business Administration
- Data Analytics
- Healthcare Administration
- Health Informatics Administration
- Information Technology: Project Management
- Management: Accounting
- Management: Acquisition and Supply Chain Management
- Management: Financial Management
- Management: Human Resource Management
- Management: Interdisciplinary Studies in Management
- Management: Marketing
- Management: Nonprofit and Association Management
- Management: Project Management
- Transformational Leadership

DOCTORAL DEGREE PROGRAM

- Business Administration

CERTIFICATE PROGRAMS

- Acquisition and Supply Chain Management
- Foundations in Business Analytics
- Foundations of Human Resource Management
- Global Health Management *
- Leadership and Management
- Project Management

* Offered jointly with University of Maryland, Baltimore

OVERVIEW OF ACADEMIC SCHOOLS AND PROGRAMS

The School of Cybersecurity and Information Technology

Douglas Harrison, PhD
Dean

S. K. Bhaskar, PhD
Associate Dean

citdean@umgc.edu

Vision

The School of Cybersecurity and Information Technology will be the preferred provider of career-enhancing higher education, preparing a modern workforce in cybersecurity, information technology, and related emerging technologies. Our courses and programs will be innovative and industry-relevant for all learners at the university.

Mission

The mission of the School of Cybersecurity and Information Technology is to

- provide career-enhancing, affordable, accessible, and streamlined educational pathways in cybersecurity, information technology, and related emerging technologies
- prepare students for career and industry growth in all its courses and degree programs
- use highly qualified scholar-practitioners to bring workplace needs and understanding to the classrooms, innovative learning models, and applications to its students

Programs of Study

Undergraduate

BACHELOR'S DEGREE PROGRAMS

Majors

- Computer Networks and Cybersecurity
- Computer Science
- Cybersecurity Management and Policy
- Digital Media and Web Technology
- Information Systems Management
- Software Development and Security

Minors

- Computer Science
- Cybersecurity
- Digital Media and Web Technology
- Information Systems Management

CERTIFICATE PROGRAM

- Computer Networking

Graduate

MASTER'S DEGREE PROGRAMS

- Cloud Computing Architecture
- Cyber Operations
- Cybersecurity Management and Policy
- Cybersecurity Technology
- Digital Forensics and Cyber Investigation
- Information Technology: Database Systems Technology
- Information Technology: Informatics
- Information Technology: Information Assurance
- Information Technology: Project Management
- Information Technology: Software Engineering
- Information Technology: Systems Engineering
- Management: Information Systems and Services

CERTIFICATE PROGRAMS

- Cloud Computing and Networking
- Cyber Operations
- Cybersecurity Management and Policy
- Cybersecurity Technology
- Digital Forensics and Cyber Investigation
- Information Assurance

ASSOCIATE DEGREE PROGRAM

DEGREE REQUIREMENTS

The following curricula and courses are available only to full-time active-duty servicemembers, selected reservists, National Guard members, Commissioned Corps members of the U.S. Public Health Service and the National Oceanic and Atmospheric Administration, spouses and children of any of the aforementioned servicemembers, veterans, spouses and children of veterans, students who began an associate degree with UMGC overseas and have now relocated state-side, UMGC employees, and spouses and children of UMGC employees.

Expectations

Within the associate degree, a UMGC degree incorporates core competencies that build toward and support both the associate and bachelor's degrees. The following essential core competencies are emphasized across all programs:

- Effective writing and oral communication
- The use of information technology
- Information literacy
- Mathematical and quantitative reasoning
- Critical analysis, critical reasoning, and problem solving
- Understanding of key concepts and principles of the natural, social, and behavioral sciences

UMGC conducts learning outcomes assessments to measure and improve your learning in these general education areas.

Requirements

Continuous Enrollment

In general, the UMGC degree requirements that apply to you are those that were in effect when you completed the first credit-bearing course in a given program at UMGC. If you cease to be continuously enrolled, the program requirements that apply to you are those in effect at UMGC when you return to UMGC and enroll in a credit-bearing course for the program you wish to pursue at that time.

To be considered continuously enrolled, you must have had no more than two sequential years of nonenrollment. After two years of nonenrollment, you must apply for admission to resume enrollment.

If you change your degree program while continuously enrolled, then the program requirements that apply to you are those in effect at the time you enroll in the first required course for that program. Previously completed coursework may not apply to the new requirements.

Information about the catalog year that applies to you is provided in the MyUMGC student portal.

The following requirements for the Associate of Arts (AA) are applicable to students who begin continuous enrollment on or after August 1, 2020.

Overall Requirements

The Associate of Arts degree requires the completion of a minimum of 60 credits, at least 15 of which (normally the final 15) must be taken through UMGC. Of these 60 credits, 35 credits must be earned in courses that fulfill the general education requirements listed on the following page. The remaining 25 credits must satisfy the requirements of the curriculum you select.

In addition to the general education requirements and elective requirements, the overall requirements listed below pertain to all associate degrees.

1. You must be admitted as an undergraduate UMGC student.
2. You must complete a minimum of 60 credits.
3. You must complete all general education requirements listed below.
4. You must maintain a minimum grade point average of 2.0 (C) overall in all courses taken through UMGC.

ASSOCIATE DEGREE PROGRAM

DEGREE REQUIREMENTS AND CURRICULA

General Education Requirements (35 credits)

Specific recommendations for fulfilling the general education requirements in each category are provided in the degree plan for the general curriculum and each specialization.

Note: Any course that may be applied toward a general education requirement is considered a general education elective. Credit applied to general education requirements may not be applied toward major, minor, or elective requirements. Courses applied to general education requirements may not be taken pass/fail.

	Credits
Communications	9
WRTG 111 or another writing course (3 credits)	
All 3-credit WRTG courses (except WRTG 288, WRTG 388, WRTG 486A, or WRTG 486B), COMM 390, COMM 492, ENGL 102, and JOUR 201 apply.	
WRTG 112 (3 credits)	
Must be completed with a grade of C- or better within the first 24 credits. May not be earned through Prior Learning (Portfolio or Course Challenge) assessment.	
A course in communication, writing, or speech (3 credits)	
ENGL 102, ENGL 281, JOUR 201 and all 3-credit COMM, SPCH, and WRTG courses (except those numbered 486A and 486B) apply.	
No more than 3 credits in writing may be earned by examination.	
Mathematics	3
MATH 105, MATH 107, MATH 115, MATH 140, STAT 200, or a mathematics course approved by the department.	
Must be completed within the first 24 credits. Prerequisites must be fulfilled before taking MATH 108, MATH 140, or any higher-numbered MATH or STAT courses.	
Note: Check individual curricula for recommended math courses.	
Arts and Humanities	6
Two 3-credit courses chosen from the following disciplines: ARTH, ARTT, ASTD (depending on course content), ENGL (except ENGL 281 and ENGL 384), GRCO, HIST, HUMN, MUSC, PHIL, THET, dance, literature, or foreign language.	

Behavioral and Social Sciences 6

Two 3-credit courses chosen from the following disciplines: AASP (AASP 201 only), ANTH, ASTD (depending on course content), BEHS, CCJS (CCJS 100, CCJS 105, CCJS 350, CCJS 360, and CCJS 461 only), ECON, GEOG, GERO (except GERO 342 and GERO 351), GVPT, PSYC, SOCY, or WMST (WMST 200 only).

Biological and Physical Sciences 7

A science lecture course (3 credits) with related laboratory course (1 credit) or a science course combining lecture and laboratory (4 credits).

Any other science course (3 credits)

Courses from the following disciplines apply: ASTR, BIOL, CHEM, GEOL, NSCI, NUTR, or PHYS. Science courses in other disciplines may also apply.

Research and Computing Literacy 4

LIBS 150 (1 credit)

IFSM 201 or CMST 301 (3 credits)

Total General Education Requirements 35

Curriculum Requirements (25 credits)

In addition to the general education requirements, you must take 25 credits of coursework related to your educational goals. You may choose a general curriculum (described on the next page) or a specialized curriculum with its own particular requirements (detailed on the following pages). You must earn a grade of C or higher in all core or core-related curriculum courses. For the specialized curricula, at least 9 credits of coursework taken through UMGC must be earned in core or core-related courses for the chosen curriculum. If you anticipate seeking a bachelor's degree, you should select courses that will advance that goal.

AA IN GENERAL STUDIES

	Credits
Curriculum Courses	25
General Education Courses	35
Total	60

ASSOCIATE DEGREE PROGRAM CURRICULA

Second Associate Degree

If you have already received an associate degree from UMGC or from another approved institution, you can broaden your education by earning a second associate degree with coursework in or related to a different academic core area.

- You must have received the first associate degree to be eligible to begin the second.
- For a second associate degree you must complete at least 15 credits of new coursework with UMGC (including at least 9 credits in the core or core-related area, depending on the degree program). The combined credit must add up to at least 75 credits.
- The 15 new credits must be uniquely applicable to the second AA curriculum.
- Before beginning work toward a second associate degree, you must request an academic advisement report (discussed on p. 306).
- You may not earn two degrees at the same level (e.g., associate degree level) at the same time using the same credit.
- You must complete all requirements for the curriculum. All course prerequisites apply.
- As with other degrees, continuous enrollment at UMGC is required.
- A minimum grade point average of 2.0 in all courses taken through UMGC is required for graduation.
- Consult an academic advisor for more information on earning a second associate degree.

Before beginning work or considering nontraditional options toward a second degree, consult an academic advisor. Advisors will be glad to explain the requirements for a second associate degree and clarify its limitations.

Curricula

What You'll Learn

Through your coursework, you will learn how to

- Communicate orally and in writing in a clear, well-organized manner
- Conduct academic research
- Think critically

General Curriculum

The Associate of Arts general curriculum is for adult students who wish to pursue their own educational goals.

Degree Requirements

AA IN GENERAL STUDIES WITH GENERAL CURRICULUM

	Credits
Curriculum Courses	25
General Education Courses	35
Total	60

In the general curriculum, you may choose related courses from several disciplines, explore several interests at once, or choose a variety of courses from UMGC's offerings. The responsibility for developing a curriculum that meets your intended learning outcomes is yours. You are encouraged to seek assistance from academic advisors in arranging your curriculum as appropriate to your personal interests and future educational plans.

COURSES IN THE GENERAL CURRICULUM (25 CREDITS)

Curriculum courses (12)

Elective courses (13)

Specialized Curricula

The Associate of Arts specialized curricula are for adult students who wish to pursue a specific career or educational goal, often as a basis for further study toward the bachelor's degree. Specialized curricula are recommended but optional within the AA degree in General Studies. You should take careful note of course prerequisites and recommended course sequences. Curricula may be available only in limited geographic areas.

ASSOCIATE DEGREE PROGRAM CURRICULA

Accounting Curriculum

Degree Requirements

AA IN GENERAL STUDIES WITH ACCOUNTING CURRICULUM

	Credits
Curriculum Courses	25
General Education Courses	35
Total	60

Within the overall outcomes of the AA degree in General Studies (listed on p. 29), the specialized curriculum in accounting will help you demonstrate competencies in fundamental accounting practices to transition toward a bachelor's degree in accounting and related fields.

COURSES IN THE ACCOUNTING CURRICULUM (25 CREDITS)

ACCT 220	Principles of Accounting I (3)
ACCT 221	Principles of Accounting II (3)
Any ACCT or FINC courses (9)	
Accounting or business courses (9)—Chosen from the following:	
BMGT 110	Introduction to Business and Management
BMGT 380	Business Law I
BMGT 381	Business Law II
BMGT 496	Business Ethics
CMIS 102	Introduction to Problem Solving and Algorithm Design
ECON 201	Principles of Macroeconomics
ECON 203	Principles of Microeconomics
IFSM 300	Information Systems in Organizations
MRKT 310	Marketing Principles
STAT 200	Introduction to Statistics <i>(if not applied to general education requirements)</i>
Any ACCT or FINC courses	
Elective course (1)	

Course Sequencing

The following table is designed to provide an optimal order for taking both required and recommended general education, curriculum, and elective courses for this program. Your plan will be unique to you, based on your previous education and credit

earned. See pp. 28–29 for information on general education and overall requirements for completing an associate degree. Contact an advisor with all questions about your official plan.

Curriculum and related requirements are listed in **bold**.

AA WITH ACCOUNTING CURRICULUM

Recommended and Required Courses	Requirement(s) Fulfilled
LIBS 150 Introduction to Research (1)	General education/computing and research
WRTG 111 Academic Writing I (3)	General education/communications
IFSM 201 Concepts and Applications of Information Technology (3)	General education/computing and research
NUTR 100 Elements of Nutrition (3)	General education/biological and physical sciences
ACCT 220 Principles of Accounting I (3)	Curriculum/course for accounting major
WRTG 112 Academic Writing II (3)	General education/communications
STAT 200 Introduction to Statistics (3)	Related for accounting major and general education/mathematics
WRTG 293 Introduction to Professional Writing (3)	Related for accounting major and general education/communications
ACCT 221 Principles of Accounting II (3)	Curriculum/course for accounting major
HUMN 100 Introduction to Humanities (3)	General education/arts and humanities
BIOL 101 Concepts of Biology (3) and BIOL 102 Laboratory in Biology (1)	General education/biological and physical sciences
ECON 201 Principles of Macroeconomics (3)	Related for accounting major and general education/behavioral and social sciences
HIST 156 History of the United States to 1865 (3)	General education/arts and humanities
ECON 203 Principles of Microeconomics (3)	Related for accounting major and general education/behavioral and social sciences
ACCT 310 Intermediate Accounting I (3)	Curriculum/course for accounting major
ACCT 311 Intermediate Accounting II (3)	Curriculum/course for accounting major
FINC 330 Business Finance (3)	Related for accounting major and elective
MRKT 310 Marketing Principles (3)	Related for accounting major and elective
BMGT 380 Business Law I (3)	Related for accounting major and elective
ACCT 321 Cost Accounting (3)	Related for accounting major and elective
Elective (1)	Elective

ASSOCIATE DEGREE PROGRAM CURRICULA

Business and Management Curriculum

Degree Requirements

AA IN GENERAL STUDIES WITH BUSINESS AND MANAGEMENT CURRICULUM

	Credits
Curriculum Courses	25
General Education Courses	35
Total	60

Within the overall outcomes of the AA degree in General Studies (listed on p. 29), the specialized curriculum in business and management will help you utilize core business concepts and principles to pursue related professional goals.

COURSES IN THE BUSINESS AND MANAGEMENT CURRICULUM (25 CREDITS)

- BMGT 110 Introduction to Business and Management (3)
 ACCT 220 Principles of Accounting I (3)
 ACCT 221 Principles of Accounting II (3)
 Business courses (12)—Chosen from any ACCT, BMGT, CMIS, ECON, FINC, HMG, HRMN, IFSM, or MRKT courses; any 3-credit CMST courses; STAT 200 (if not applied to general education requirements); and PSYC 321
 Elective courses (4)—Courses that may be applicable to the BS in Business Administration are recommended.

Course Sequencing

The following table is designed to provide an optimal order for taking both required and recommended general education, curriculum, and elective courses for this program. Your plan will be unique to you, based on your previous education and credit earned. See pp. 28–29 for information on general education and overall requirements for completing an associate degree. Contact an advisor with all questions about your official plan.

Curriculum and related requirements are listed in **bold**.

AA WITH BUSINESS AND MANAGEMENT CURRICULUM

Recommended and Required Courses	Requirement(s) Fulfilled
LIBS 150 Introduction to Research (1)	General education/computing and research
WRWG 111 Academic Writing I (3)	General education/communications
WRWG 112 Academic Writing II (3)	General education/communications
NUTR 100 Elements of Nutrition (3)	General education/biological and physical sciences
BMGT 110 Introduction to Business and Management (3)	Curriculum/course for business administration major
SPCH 100 Foundations of Oral Communication (3)	General education/communications
STAT 200 Introduction to Statistics (3)	Related for business administration major and general education/mathematics
IFSM 201 Concepts and Applications of Information Technology (3)	General education/computing and research
ACCT 220 Principles of Accounting I (3)	Curriculum/course for business administration major
HUMN 100 Introduction to Humanities (3)	General education/arts and humanities
BIOL 101 Concepts of Biology (3) and BIOL 102 Laboratory in Biology (1)	General education/biological and physical sciences
ECON 201 Principles of Macroeconomics (3)	Related for business administration major and general education/behavioral and social sciences
HIST 156 History of the United States to 1865 (3)	General education/arts and humanities
ECON 203 Principles of Microeconomics (3)	Related for business administration major and general education/behavioral and social sciences
ACCT 221 Principles of Accounting II (3)	Curriculum/course for business administration major
BMGT 364 Management and Organization Theory (3)	Curriculum/course for business administration major
MRKT 310 Marketing Principles (3)	Curriculum/course for business administration major
HRMN 300 Human Resource Management (3)	Curriculum/course for business administration major
FINC 330 Business Finance (3)	Curriculum/course for business administration major
Elective (3)	Elective
Elective (1)	Elective

ASSOCIATE DEGREE PROGRAM CURRICULA

Computer Studies Curriculum

Degree Requirements

AA IN GENERAL STUDIES WITH COMPUTER STUDIES CURRICULUM

	Credits
Curriculum Courses	25
General Education Courses	35
Total	60

Within the overall outcomes of the AA degree in General Studies (listed on p. 29), the specialized curriculum in computer studies will help you apply a selected range of fundamental computer-based skills to advance your professional and career goals.

COURSES IN THE COMPUTER STUDIES CURRICULUM (25 CREDITS)

CMIS 102 Introduction to Problem Solving and Algorithm Design (3)
or a programming language course

Computer studies–related courses (12)—Chosen from any CMIS, CMIT, CMSC, CMST, CSIA, IFSM, or SDEV courses

Elective courses (10)—Courses that may be applicable to a BS in a computing field are recommended.

Course Sequencing

The following table is designed to provide an optimal order for taking both required and recommended general education, curriculum, and elective courses for this program. Your plan will be unique to you, based on your previous education and credit earned. See pp. 28–29 for information on general education and overall requirements for completing an associate degree. Contact an advisor with all questions about your official plan.

Curriculum and related requirements are listed in **bold**.

AA WITH COMPUTER STUDIES CURRICULUM

Recommended and Required Courses	Requirement(s) Fulfilled
LIBS 150 Introduction to Research (1)	General education/computing and research
WRTG 111 Academic Writing I (3)	General education/communications
IFSM 201 Concepts and Applications of Information Technology (3)	General education/computing and research
NUTR 100 Elements of Nutrition (3)	General education/biological and physical sciences
CMIS 102 Introduction to Problem Solving and Algorithm Design (3)	Related for computer studies major and general education/computing and research
SPCH 100 Foundations of Oral Communication (3)	General education/communications
MATH 115 Pre-Calculus (3)	Prerequisite to computer science major courses and general education/mathematics
WRTG 112 Academic Writing II (3)	General education/communications
CMIS 141 Introductory Programming (3)	Curriculum/course for computer studies major
HUMN 100 Introduction to Humanities (3)	General education/arts and humanities
BIOL 101 Concepts of Biology (3) and BIOL 102 Laboratory in Biology (1)	General education/biological and physical sciences
PSYC 100 Introduction to Psychology (3)	General education/behavioral and social sciences
HIST 156 History of the United States to 1865 (3)	General education/arts and humanities
CMIS 242 Intermediate Programming (3)	Curriculum/course for computer studies major
ECON 201 Principles of Macroeconomics (3)	General education/behavioral and social sciences
CMSC 150 Introduction to Discrete Structures (3)	Related for computer studies major and elective
SDEV 300 Building Secure Python Applications (3)	Curriculum/course for computer studies major
Elective (3)	Elective
Elective (3)	Elective
Elective (3)	Elective
Elective (1)	Elective

ASSOCIATE DEGREE PROGRAM CURRICULA

Criminal Justice Curriculum

Degree Requirements

AA IN GENERAL STUDIES WITH CRIMINAL JUSTICE CURRICULUM

	Credits
Curriculum Courses	25
General Education Courses	35
Total	60

Within the overall outcomes of the AA degree in General Studies (listed on p. 29), the specialized curriculum in criminal justice will help you apply knowledge of the criminal justice system to advance your professional and educational goals.

COURSES IN THE CRIMINAL JUSTICE CURRICULUM (25 CREDITS)

Any CCJS courses (12)

Elective courses (13)—Courses that may be applicable to the BS in Criminal Justice are recommended.

Course Sequencing

The following table is designed to provide an optimal order for taking both required and recommended general education, curriculum, and elective courses for this program. Your plan will be unique to you, based on your previous education and credit earned. See pp. 28–29 for information on general education and overall requirements for completing an associate degree. Contact an advisor with all questions about your official plan.

Curriculum and related requirements are listed in **bold**.

AA WITH CRIMINAL JUSTICE CURRICULUM

Recommended and Required Courses	Requirement(s) Fulfilled
LIBS 150 Introduction to Research (1)	General education/computing and research
WRTG 111 Academic Writing I (3)	General education/communications
IFSM 201 Concepts and Applications of Information Technology (3)	General education/computing and research
NUTR 100 Elements of Nutrition (3)	General education/biological and physical sciences
CCJS 100 Introduction to Criminal Justice (3)	Curriculum/course for criminal justice major
SPCH 100 Foundations of Oral Communication (3)	General education/communications
MATH 105 Topics for Mathematical Literacy (3)	General education/mathematics
WRTG 112 Academic Writing II (3)	General education/communications
CCJS 230 Criminal Law in Action (3)	Curriculum/course for criminal justice major
HUMN 100 Introduction to Humanities (3)	General education/arts and humanities
BIOL 101 Concepts of Biology (3) and BIOL 102 Laboratory in Biology (1)	General education/biological and physical sciences
PSYC 100 Introduction to Psychology (3)	General education/behavioral and social sciences
HIST 156 History of the United States to 1865 (3)	General education/arts and humanities
ECON 201 Principles of Macroeconomics (3)	General education/behavioral and social sciences
CCJS 340 Law Enforcement Administration (3)	Curriculum/course for criminal justice major
CCJS 345 Introduction to Security Management (3)	Curriculum/course for criminal justice major
CCJS 350 Juvenile Delinquency (3)	Curriculum/course for criminal justice major
CCJS 360 Victimology (3)	Curriculum/course for criminal justice major
CCJS 380 Ethical Behavior in Criminal Justice (3)	Curriculum/course for criminal justice major
CCJS 341 Criminal Investigation (3)	Curriculum/course for criminal justice major
Elective (1)	Elective

ASSOCIATE DEGREE PROGRAM CURRICULA

Foreign Language Area Studies Curriculum

Degree Requirements

AA IN GENERAL STUDIES WITH FOREIGN LANGUAGE AREA STUDIES CURRICULUM

	Credits
Curriculum Courses	25
General Education Courses	35
Total	60

Within the overall outcomes of the AA degree in General Studies (listed on p. 29), the specialized curriculum in foreign language area studies will help you develop intermediate foreign language skills and related cultural knowledge in a variety of personal and professional settings.

If you have previous experience in the foreign language you wish to study, contact the department at languages@umgc.edu about a placement test.

COURSES IN THE FOREIGN LANGUAGE AREA STUDIES CURRICULUM (25 CREDITS)

Language core courses (12)—Sequential courses in a single language, usually numbered 111–112 and 114–115 (or 211–212)

Related area studies courses (12)—Any courses in the culture, history, language, literature, or government and politics of the area (see specific courses for each language area)

Elective course (1)

Course Sequencing

The following table is designed to provide an optimal order for taking both required and recommended general education, curriculum, and elective courses for this program. Your plan will be unique to you, based on your previous education and credit earned. See pp. 28–29 for information on general education and overall requirements for completing an associate degree. Contact an advisor with all questions about your official plan.

Curriculum and related requirements are listed in **bold**.

AA WITH FOREIGN LANGUAGE AREA STUDIES CURRICULUM

Recommended and Required Courses	Requirement(s) Fulfilled
LIBS 150 Introduction to Research (1)	General education/computing and research
WRTG 111 Academic Writing I (3)	General education/communications
IFSM 201 Concepts and Applications of Information Technology (3)	General education/computing and research
NUTR 100 Elements of Nutrition (3)	General education/biological and physical sciences
ASTD 284 Foundations of East Asian Civilization (3)	Curriculum/required course for East Asian studies major
SPCH 100 Foundations of Oral Communication (3)	General education/communications
MATH 105 Topics for Mathematical Literacy (3)	General education/mathematics
WRTG 112 Academic Writing II (3)	General education/communications
ASTD 285 Introduction to Modern East Asia (3)	Curriculum/required course for East Asian studies major
HUMN 100 Introduction to Humanities (3)	General education/arts and humanities
BIOL 101 Concepts of Biology (3) and BIOL 102 Laboratory in Biology (1)	General education/biological and physical sciences
PSYC 100 Introduction to Psychology (3)	General education/behavioral and social sciences
HIST 156 History of the United States to 1865 (3)	General education/arts and humanities
ECON 201 Principles of Macroeconomics (3)	General education/behavioral and social sciences
CHIN 111 Elementary Chinese I or JAPN 111 Elementary Japanese I or KORN 111 Elementary Korean I (3)	Curriculum/course for East Asian studies major
CHIN 112 Elementary Chinese II or JAPN 112 Elementary Japanese II or KORN 112 Elementary Korean II (3)	Curriculum/course for East Asian studies major
CHIN 114 Elementary Chinese III or JAPN 114 Elementary Japanese III or KORN 114 Elementary Korean III (3)	Curriculum/course for East Asian studies major
CHIN 115 Elementary Chinese IV or JAPN 115 Elementary Japanese IV or KORN 115 Elementary Korean IV (3)	Curriculum/course for East Asian studies major
ASTD 370 Interpreting Contemporary China or JAPN 333 Japanese Society and Culture (3)	Curriculum/course for East Asian studies major
PHIL 348 Religions of the East (3)	Curriculum/course for East Asian studies major
Elective (1)	Elective

ASSOCIATE DEGREE PROGRAM CURRICULA

Legal Studies Curriculum

Degree Requirements

AA IN GENERAL STUDIES WITH LEGAL STUDIES CURRICULUM	
	Credits
Curriculum Courses	25
General Education Courses	35
Total	60

Within the overall outcomes of the AA degree in General Studies (listed on p. 29), the specialized curriculum in legal studies will help you acquire knowledge of legal systems to advance your professional and educational goals.

COURSES IN THE LEGAL STUDIES CURRICULUM (25 CREDITS)

LGST 101	Introduction to Law (3)
LGST 200	Techniques of Legal Research (3)
LGST 201	Legal Writing (3)
LGST 204	Legal Ethics (3)

Any LGST courses (6)

Elective courses (7)—Courses that may be applicable to the BS in Legal Studies are recommended.

Course Sequencing

The following table is designed to provide an optimal order for taking both required and recommended general education, curriculum, and elective courses for this program. Your plan will be unique to you, based on your previous education and credit earned. See pp. 28–29 for information on general education and overall requirements for completing an associate degree. Contact an advisor with all questions about your official plan.

Curriculum and related requirements are listed in **bold**.

AA IN LEGAL STUDIES CURRICULUM

Recommended and Required Courses	Requirement(s) Fulfilled
LIBS 150 Introduction to Research (1)	General education/computing and research
WRTG 111 Academic Writing I (3)	General education/communications
IFSM 201 Concepts and Applications of Information Technology (3)	General education/computing and research
NUTR 100 Elements of Nutrition (3)	General education/biological and physical sciences
LGST 101 Introduction to Law (3)	Curriculum/required course for legal studies major
SPCH 100 Foundations of Oral Communication (3)	General education/communications
MATH 105 Topics for Mathematical Literacy (3)	General education/mathematics
WRTG 112 Academic Writing II (3)	General education/communications
LGST 200 Techniques of Legal Research (3)	Curriculum/required course for legal studies major
HUMN 100 Introduction to Humanities (3)	General education/arts and humanities
BIOL 101 Concepts of Biology (3) and BIOL 102 Laboratory in Biology (1)	General education/biological and physical sciences
PSYC 100 Introduction to Psychology (3)	General education/behavioral and social sciences
HIST 156 History of the United States to 1865 (3)	General education/arts and humanities
LGST 201 Legal Writing (3)	Curriculum/required course for legal studies major
ECON 201 Principles of Macroeconomics (3)	General education/behavioral and social sciences
LGST 204 Legal Ethics (3)	Curriculum/required course for legal studies major
LGST 301 Advanced Legal Writing (3)	Curriculum/required course for legal studies major
LGST 312 Torts (3)	Curriculum/required course for legal studies major
Elective (3)	Elective
Elective (3)	Elective
Elective (1)	Elective

ASSOCIATE DEGREE PROGRAM CURRICULA

Management Studies Curriculum

Degree Requirements

AA IN GENERAL STUDIES WITH MANAGEMENT STUDIES CURRICULUM

	Credits
Curriculum Courses	25
General Education Courses	35
Total	60

Within the overall outcomes of the AA degree in General Studies (listed on p. 29), the specialized curriculum in management studies will help you apply knowledge from management-related disciplines to advance your professional and educational goals.

COURSES IN THE MANAGEMENT CURRICULUM (25 CREDITS)

Management-related courses (15)—Chosen from the following:

Any ACCT, BMGT, CMIS, CMST, ECON, FINC, HMG, HRMN, IFSM, and MRKT courses

PSYC 321 Social Psychology

COMM 390 Writing for Managers

Elective courses (10)—Courses that may be applicable to the BS in Management Studies are recommended.

Course Sequencing

The following table is designed to provide an optimal order for taking both required and recommended general education, curriculum, and elective courses for this program. Your plan will be unique to you, based on your previous education and credit earned. See pp. 28–29 for information on general education and overall requirements for completing an associate degree. Contact an advisor with all questions about your official plan.

Curriculum and related requirements are listed in **bold**.

AA IN MANAGEMENT STUDIES CURRICULUM

Recommended and Required Courses	Requirement(s) Fulfilled
LIBS 150 Introduction to Research (1)	General education/computing and research
WRTG 111 Academic Writing I (3)	General education/communications
IFSM 201 Concepts and Applications of Information Technology (3)	General education/computing and research
NUTR 100 Elements of Nutrition (3)	General education/biological and physical sciences
BMGT 110 Introduction to Business and Management (3)	Curriculum/course for management studies major
SPCH 100 Foundations of Oral Communication (3)	General education/communications
STAT 200 Introduction to Statistics (3)	Related for management studies major and general education/mathematics
WRTG 112 Academic Writing II (3)	General education/communications
ACCT 301 Accounting for Nonaccounting Managers (3)	Curriculum/course for management studies major
HUMN 100 Introduction to Humanities (3)	General education/arts and humanities
BIOL 101 Concepts of Biology (3) and BIOL 102 Laboratory in Biology (1)	General education/biological and physical sciences
PSYC 100 Introduction to Psychology (3)	General education/behavioral and social sciences
HIST 156 History of the United States to 1865 (3)	General education/arts and humanities
ECON 201 Principles of Macroeconomics (3)	Related elective for management studies major and general education/behavioral and social sciences
BMGT 364 Management and Organization Theory (3)	Curriculum/course for management studies major
BMGT 365 Organizational Leadership (3)	Curriculum/course for management studies major
BMGT 317 Decision Making (3)	Curriculum/course for management studies major
Elective (3)	Elective
Elective (3)	Elective
Elective (3)	Elective
Elective (1)	Elective

ASSOCIATE DEGREE PROGRAM CURRICULA

Mathematics Curriculum

Degree Requirements

AA IN GENERAL STUDIES WITH MATHEMATICS CURRICULUM

	Credits
Curriculum Courses	25
General Education Courses	35
Total	60

Within the overall outcomes of the AA degree in General Studies (listed on p. 29), the specialized curriculum in mathematics will help you employ appropriate mathematical methods and technologies to accomplish quantitative tasks in your professional and educational contexts.

COURSES IN THE MATHEMATICS CURRICULUM (25 CREDITS)

MATH 140	Calculus I (4)
MATH 141	Calculus II (4)
MATH 241	Calculus III (4)
MATH 340	Linear Algebra (4) or MATH 246 Differential Equations
STAT 200	Introduction to Statistics (3)

Mathematics-related course (3)—Chosen from the following:

Any ACCT or FINC course

CHEM 103	General Chemistry I
CHEM 113	General Chemistry II
CMIS 102	Introduction to Problem Solving and Algorithm Design
CMSC 150	Introduction to Discrete Structures
CMIS 242	Intermediate Programming
ECON 201	Principles of Macroeconomics
ECON 203	Principles of Microeconomics
ECON 430	Money and Banking
ECON 440	International Economics

Any MATH course numbered 108 or higher

Any math-based physics course

Elective courses (3–4)

Course Sequencing

The following table is designed to provide an optimal order for taking both required and recommended general education, curriculum, and elective courses for this program. Your plan will be unique to you, based on your previous education and credit earned. See pp. 28–29 for information on general education and overall requirements for completing an associate degree. Contact an advisor with all questions about your official plan.

Curriculum and related requirements are listed in **bold**.

AA IN MATHEMATICS CURRICULUM	
Recommended and Required Courses	Requirement(s) Fulfilled
LIBS 150 Introduction to Research (1)	General education/computing and research
WRWG 111 Academic Writing I (3)	General education/communications
IFSM 201 Concepts and Applications of Information Technology (3)	General education/computing and research
NUTR 100 Elements of Nutrition (3)	General education/biological and physical sciences
MATH 115 Pre-Calculus (3)	Prerequisite to curriculum courses and general education/mathematics
SPCH 100 Foundations of Oral Communication (3)	General education/communications
MATH 140 Calculus I (4)	Curriculum course
WRWG 112 Academic Writing II (3)	General education/communications
STAT 200 Introduction to Statistics (3)	Curriculum course
HUMN 100 Introduction to Humanities (3)	General education/arts and humanities
BIOL 101 Concepts of Biology (3) and BIOL 102 Laboratory in Biology (1)	General education/biological and physical sciences
PSYC 100 Introduction to Psychology (3)	General education/behavioral and social sciences
HIST 156 History of the United States to 1865 (3)	General education/arts and humanities
MATH 141 Calculus II (4)	Curriculum course
ECON 201 Principles of Economics (3)	General education/behavioral and social sciences
MATH 241 Calculus III (4)	Curriculum course
MATH 301 Concepts of Real Analysis I (3)	Curriculum course
MATH 246 Differential Equations (3)	Curriculum course
Elective (3)	Elective
Elective (1)	Elective

ASSOCIATE DEGREE PROGRAM CURRICULA

Psychology Curriculum

Degree Requirements

AA IN GENERAL STUDIES WITH PSYCHOLOGY CURRICULUM

	Credits
Curriculum Courses	25
General Education Courses	35
Total	60

Within the overall outcomes of the AA degree in General Studies (listed on p. 29), the specialized curriculum in psychology will help you develop knowledge of human behavior.

COURSES IN THE PSYCHOLOGY CURRICULUM (25 CREDITS)

PSYC 100 Introduction to Psychology (3)

Psychology-related courses (12)—Chosen from the following:

PSYC 321 Introduction to Social Psychology
or another PSYC course

PSYC 335 Personality
or another PSYC course

PSYC 351 Lifespan Development
or another PSYC course

PSYC 353 Abnormal Psychology
or another PSYC course

Elective courses (10)—Courses that may be applicable to the BS in Psychology are recommended.

Course Sequencing

The following table is designed to provide an optimal order for taking both required and recommended general education, curriculum, and elective courses for this program. Your plan will be unique to you, based on your previous education and credit earned. See pp. 28–29 for information on general education and overall requirements for completing an associate degree. Contact an advisor with all questions about your official plan.

Curriculum and related requirements are listed in **bold**.

AA WITH PSYCHOLOGY CURRICULUM

Recommended and Required Courses	Requirement(s) Fulfilled
LIBS 150 Introduction to Research (1)	General education/computing and research
WRWG 111 Academic Writing I (3)	General education/communications
IFSM 201 Concepts and Applications of Information Technology (3)	General education/computing and research
NUTR 100 Elements of Nutrition (3)	General education/biological and physical sciences
PSYC 100 Introduction to Psychology (3)	Curriculum/course for psychology major
SPCH 100 Foundations of Oral Communication (3)	General education/communications
STAT 200 Introduction to Statistics (3)	Related for psychology major and general education/mathematics
WRWG 112 Academic Writing II (3)	General education/communications
PSYC 321 Social Psychology (3)	Curriculum/course for psychology major
HUMN 100 Introduction to Humanities (3)	General education/arts and humanities
BIOL 101 Concepts of Biology (3) and BIOL 102 Laboratory in Biology (1)	General education/biological and physical sciences
BEHS 103 Technology in Contemporary Society (3)	General education/behavioral and social sciences
HIST 156 History of the United States to 1865 (3)	General education/arts and humanities
SOCY 100 Introduction to Sociology (3)	General education/behavioral and social sciences
PSYC 335 Theories of Personality (3)	Curriculum/course for psychology major
PSYC 351 Lifespan Development (3)	Curriculum/course for psychology major
PSYC 353 Abnormal Psychology (3)	Curriculum/course for psychology major
Elective (3)	Elective
Elective (3)	Elective
Elective (3)	Elective
Elective (1)	Elective

ASSOCIATE DEGREE PROGRAM CURRICULA

Women's Studies Curriculum

Degree Requirements

AA IN GENERAL STUDIES WITH WOMEN'S STUDIES CURRICULUM	
	Credits
Curriculum Courses	25
General Education Courses	35
Total	60

Within the overall outcomes of the AA degree in General Studies (listed on p. 29), the specialized curriculum in women's studies will help you develop knowledge of the history, status, and experience of women in your professional, personal, and educational contexts.

COURSES IN THE WOMEN'S STUDIES CURRICULUM (25 CREDITS)

WMST 200 Introduction to Women's Studies: Women and Society (3)

Women's studies–related courses (15)—Chosen from the following:

- BEHS 220 Diversity Awareness
- BEHS 343 Parenting Today
- BEHS 453 Domestic Violence
- ENGL 250 Introduction to Women's Literature
- GERO 311 Gender and Aging
- PSYC 338 Psychology of Gender
- SOCY 325 The Sociology of Gender
- SOCY 443 Sociology of the Family
- SOCY 462 Women in the Military
- SPCH 324 Communication and Gender

Elective courses (7)

Course Sequencing

The following table is designed to provide an optimal order for taking both required and recommended general education, curriculum, and elective courses for this program. Your plan will

be unique to you, based on your previous education and credit earned. See pp. 28–29 for information on general education and overall requirements for completing an associate degree. Contact an advisor with all questions about your official plan.

Curriculum and related requirements are listed in **bold**.

AA IN WOMEN'S STUDIES CURRICULUM	
Recommended and Required Courses	Requirement(s) Fulfilled
LIBS 150 Introduction to Research (1)	General education/computing and research
WRTG 111 Academic Writing I (3)	General education/communications
IFSM 201 Concepts and Applications of Information Technology (3)	General education/computing and research
NUTR 100 Elements of Nutrition (3)	General education/biological and physical sciences
WMST 200 Introduction to Women's Studies: Women and Society (3)	Curriculum/course for women's studies minor
SPCH 100 Foundations of Oral Communication (3)	General education/communications
MATH 105 Topics for Mathematical Literacy (3)	General education/mathematics
WRTG 112 Academic Writing II (3)	General education/communications
BEHS 220 Diversity Awareness (3)	Curriculum/course for women's studies minor
HUMN 100 Introduction to Humanities (3)	General education/arts and humanities
BIOL 101 Concepts of Biology (3) and BIOL 102 Laboratory in Biology (1)	General education/biological and physical sciences
PSYC 100 Introduction to Psychology (3)	General education/behavioral and social sciences
HIST 156 History of the United States to 1865 (3)	General education/arts and humanities
GERO 311 Gender and Aging (3)	Curriculum/course for women's studies minor
SOCY 100 Introduction to Sociology (3)	General education/behavioral and social sciences
PSYC 338 Psychology of Gender (3)	Curriculum/course for women's studies minor
SOCY 325 The Sociology of Gender (3)	Curriculum/course for women's studies minor
SPCH 324 Communication and Gender (3)	Curriculum/course for women's studies minor
Elective (3)	Elective
Elective (3)	Elective
Elective (1)	Elective

BACHELOR'S DEGREE PROGRAMS

DEGREE REQUIREMENTS

At the undergraduate level, UMGC offers the Bachelor of Arts (BA), Bachelor of Science (BS), Bachelor of Science in Nursing (BSN), and Bachelor of Technical and Professional Studies (BTPS) degrees. The BSN program is available only to students who have an associate degree in nursing or a diploma from a registered nursing education program that is recognized by the appropriate state board of nursing and who reside in and have an active, unencumbered nursing license in an approved state.* The BTPS degree is available only to students who have earned the Associate of Applied Science (AAS) degree from a community college with which UMGC has an appropriate articulation agreement.

Except for those restricted programs, current UMGC degree programs are open to you from virtually anywhere in the world. However, offerings sufficient to complete every program may not be available at every location or in every format. You should consult your advisor, current schedules, and site-specific materials to determine which programs you may normally expect to complete from your geographic location.

Requirements for degrees vary according to the major and minor. The requirements you must meet to complete your bachelor's degree, regardless of your academic major, are summarized in the following sections.

Expectations

Within each academic major, a UMGC degree incorporates program-specific and core competencies. The following essential core competencies are emphasized across all programs:

- Effective writing and oral communication
- The use of information technology
- Information literacy
- Mathematical and quantitative reasoning
- Critical analysis, critical reasoning, and problem solving
- Understanding of key concepts and principles of the natural, social, and behavioral sciences

UMGC conducts learning outcomes assessments to measure and improve your learning in these areas as well as in specific disciplinary knowledge and skills.

Your academic major (and minor, if you choose one) allows you to master a considerable body of knowledge in a specific academic subject area or group of related subjects. Each major provides clearly articulated learning outcomes for the knowledge, skills, and abilities you are expected to acquire in completing the major.

Requirements

Continuous Enrollment

In general, the UMGC degree requirements that apply to you are those that were in effect when you completed the first credit-bearing course in a given program at UMGC. If you cease to be continuously enrolled, the program requirements that apply to you are those in effect at UMGC when you return to UMGC and enroll in a credit-bearing course for the program you wish to pursue at that time.

To be considered continuously enrolled, you must have had no more than two sequential years of nonenrollment. After two years of non-enrollment, you must apply for admission to resume enrollment.

If you change your degree program while continuously enrolled, then the program requirements that apply to you are those in effect at the time you enroll in the first required course for that program. Previously completed coursework may not apply to the new requirements.

Information about the catalog year that applies to you is provided in the MyUMGC student portal.

The following requirements for the BA, BS, BSN, and BTPS are applicable to students who begin continuous enrollment on or after August 1, 2020.

Overall Bachelor's Degree Requirements

In addition to the general education requirements and the major, minor, and elective requirements, the overall requirements listed below pertain to all bachelor's degrees.

1. You must be admitted as an undergraduate UMGC student.
2. You must complete a minimum of 120 credits.
3. You must maintain a minimum grade point average of 2.0 (C) overall and a minimum grade of C (2.0) for any course applied to the academic major or minor.
4. You must complete all general education requirements listed on the following page.

* See umgc.edu/nursing for the most up-to-date list of approved states.

BACHELOR'S DEGREE PROGRAMS

DEGREE REQUIREMENTS

5. You must complete all coursework required for an academic major, which typically requires from 30 to 36 credits.
6. At least 36 credits must be upper level (i.e., earned in courses numbered 300 to 499) and include at least one-half of the credits required for the major. The remaining upper-level credits may be earned in any part of the curriculum.
7. At least half the required number of credits for any academic major or minor must be earned through graded coursework. Credits earned by examination, portfolio assessment, and noncollegiate training do not count as graded coursework.
8. Within the 120 credits required, the following coursework must be taken through UMGC:
 - 30 credits (normally the final 30)
 - Half of the required number of credits within both the major (if you are not majoring in general studies, described on p. 70) and the minor (if you choose a minor)
 - 15 credits at the upper level (i.e., earned in courses numbered 300 to 499), preferably within the major or minor (if you choose a minor)

General Education Requirements

Recommendations for fulfilling general education requirements are provided for each major in the recommended sequence.

Note: Any course that may be applied toward a general education requirement may not also be applied toward major, minor, or elective requirements. Courses applied to meet general education requirements may not be taken pass/fail.

	Credits
Communications	12
WRTG 111 or another writing course (3 credits)	
All 3-credit WRTG courses (except WRTG 288, WRTG 388, WRTG 486A, or WRTG 486B), COMM 390, COMM 492, ENGL 102, and JOUR 201 apply.	
WRTG 112 (3 credits)	
Must be completed with a grade of C- or better within the first 24 credits. May not be earned through Prior Learning (Portfolio Assessment or Course Challenge) assessment.	
A course in communication, writing, or speech (3 credits)	
ENGL 102, ENGL 281, JOUR 201, and all 3-credit COMM, SPCH, and WRTG courses (except those numbered 486A and 486B) apply.	
An upper-level advanced writing course (3 credits)	
WRTG 391, WRTG 393, and WRTG 394 apply.	
No more than 3 credits in writing may be earned by examination.	

Mathematics 3

MATH 105, MATH 107, MATH 115, MATH 140, STAT 200, or a mathematics course approved by the department.

Must be completed within the first 24 credits. Prerequisites must be fulfilled before taking MATH 108, MATH 140, or any higher-numbered MATH or STAT courses.

Note: Check individual majors for recommended math courses and related requirements.

Arts and Humanities 6

Two 3-credit courses chosen from the following disciplines: ARTH, ARTT, ASTD (depending on course content), ENGL (except ENGL 281 and ENGL 384), GRCO, HIST, HUMN, MUSC, PHIL, THET, dance, literature, or foreign language.

Behavioral and Social Sciences 6

Two 3-credit courses chosen from the following disciplines: AASP (AASP 201 only), ANTH, ASTD (depending on course content), BEHS, CCJS (CCJS 100, CCJS 105, CCJS 350, CCJS 360, and CCJS 461 only), ECON, GEOG, GERO (except GERO 342 and GERO 351), GVPT, PSYC, SOCY, or WMST (WMST 200 only).

Biological and Physical Sciences 7

A science lecture course (3 credits) with related laboratory course (1 credit) or a science course combining lecture and laboratory (4 credits).

Any other science course (3 credits).

Courses from the following disciplines apply: ASTR, BIOL, CHEM, GEOL, NSCI, NUTR, or PHYS. Science courses in other disciplines may also apply.

Research and Computing Literacy 7

Professional exploration course (3 credits)

Should preferably be taken within the first 6 credits. PACE 111B, PACE 111C, PACE 111M, PACE 111P, PACE 111S, and PACE 111T apply.

LIBS 150, CAPL 398A, or a general education elective (1 credit)

One course in computing or information technology (3 credits)

Unless otherwise specified, upper- or lower-level courses designated CMIS, CMIT, CMSC, CMST, CSIA, IFSM, and SDEV and ACCT 326 apply. Refer to your specific major for requirements or recommendations.

Total General Education Requirements 41 Credits

BACHELOR'S DEGREE PROGRAMS

DEGREE REQUIREMENTS

Major, Minor, and Elective Requirements

	Credits
Academic Major	30–36
<p>The number of credits required to complete an academic major varies according to academic program. At least half the credits earned within the major must be upper level (i.e., earned in courses numbered 300 and higher) and must be earned through UMGC. No grade may be lower than C. Specific coursework is prescribed for each major and is described in the following chapter.</p> <p>You may receive a double major; requirements and restrictions are described below.</p>	
Academic Minor	15–18
<p>Choosing a minor is strongly encouraged even though it is optional. You may not take a major and minor in the same area and may not receive a double minor. The number of credits required to complete an academic minor varies according to academic program. At least half the credits earned within the minor must be upper level (unless otherwise specified) and must be earned through UMGC.</p> <p>No grade may be lower than C. Specific coursework is prescribed for each minor and is described in the following chapter.</p>	
Electives	25–34
<p>Electives may be taken in any academic discipline. Pass/fail credit, up to a maximum of 18 credits, may be applied toward electives only.</p>	
Total Major, Minor, and Elective Requirements	79

BACHELOR'S DEGREE REQUIREMENTS

	Credits
General Education Courses	41
Academic Major Courses	30–36
Academic Minor and Elective Courses	43–49
Total	120

Double Major

You can earn a double major upon completion of all requirements for both majors, including the required minimum number of credits for each major and all related requirements for both majors. The same course cannot be used to fulfill requirements for more than one major. Certain restrictions (including use of credit and acceptable combinations of majors) apply for double majors. You cannot major in two programs with excessive overlap of required coursework. Contact an admissions advisor before selecting a double major.

Second Bachelor's Degree

If you have already received a bachelor's degree from UMGC or from another approved institution, you can broaden your education by earning a second bachelor's degree with a different major.

- You must have received the first bachelor's degree to be eligible to begin a second.
- For a second bachelor's degree, you need to complete at least 30 new credits through UMGC after completing the first degree. The combined credit in both degrees must add up to at least 150 credits.
- You may not earn a second bachelor's degree with a double major. You may not earn a second degree in general studies and may not obtain a second associate degree within the second bachelor's degree.
- To qualify for academic honors in a second bachelor's degree, you must complete at least 30 new credits through UMGC with the requisite grade point average.
- You must complete all requirements for the major. All course prerequisites apply.
- If any major requirements were satisfied in the previous degree, the remainder necessary to complete the minimum 30 credits of new coursework should be satisfied with courses related to the major. For purposes of determining what major requirements apply, the applicable date is the date you started coursework at UMGC after being admitted into the second undergraduate degree program.
- As with other degrees, continuous enrollment at UMGC is required.
- A minimum grade point average of 2.0 in all courses taken through UMGC is required for graduation.

Before beginning work or considering nontraditional options toward a second degree, consult an academic advisor. Advisors will be glad to explain the requirements for a second bachelor's degree and clarify its limitations. The general studies major may not be selected as a second bachelor's degree.

BACHELOR'S DEGREE PROGRAMS CURRICULA

Accounting

You may seek either an academic major or minor in accounting.

Major in Accounting

The major in accounting combines theory and practice to help prepare you to analyze and report on the economic activities of organizations. You'll develop skills in managerial accounting, budgeting, accounting systems, internal controls, financial analysis, financial reporting, internal and external auditing, taxation, and international accounting.

What You'll Learn

Through your coursework, you will learn how to

- Communicate with financial and nonfinancial audiences in a clear and concise manner and make appropriate financial decisions
- Research, prepare, analyze, and review financial and business data by applying accounting and business management principles to produce financial and business reports
- Use current technology and analytical tools to work collaboratively and facilitate decision making
- Employ analysis, critical thinking, and problem solving to identify, test, and validate processes, systems, and financial data
- Define, develop, and demonstrate ethical business practices and accountability by identifying and addressing current and emerging issues
- Conduct fraud detection and deterrence planning, analysis, and communication
- Perform a range of functions, including auditing and financial reporting, to manage finances for federal agencies
- Create reports and conduct disclosure analysis

INDUSTRY CERTIFICATION

This program is designed to help prepare you for the following certification exams, listed in alphabetical order:

- Certified Fraud Examiner (CFE)
- Certified Government Auditing Professional (CGAP)
- Certified Government Financial Manager (CGFM)
- Certified Information Systems Auditor (CISA)
- Certified Internal Auditor (CIA)
- Certified Management Accountant/Certified Financial Manager (CMA/CFM)
- Certified Public Accountant (CPA)*

Vertical Pathway

If you complete your undergraduate degree at UMGC with a major in accounting, a vertical pathway between UMGC undergraduate and graduate programs in that field allows you to reduce your total coursework for the Master of Science in Accounting and Financial Management, Accounting and Information Systems, or Management with a specialization in accounting at UMGC by 6 credits (two courses). Details are on p. 19.

Degree Requirements

BS IN ACCOUNTING

	Credits
General Education Courses	41
Required Major Courses	36
Minor and Elective Courses	43
Total	120

REQUIRED MAJOR COURSES (36 CREDITS)

ACCT 220	Principles of Accounting I (3)
ACCT 221	Principles of Accounting II (3)
ACCT 310	Intermediate Accounting I (3)
ACCT 311	Intermediate Accounting II (3)
ACCT 321	Cost Accounting (3)
ACCT 323	Federal Income Tax I (3)
ACCT 326	Accounting Information Systems (3)
ACCT 410	Accounting for Government and Not-for-Profit Organizations (3) or any upper-level ACCT course
ACCT 422	Auditing Theory and Practice (3)
ACCT 424	Advanced Accounting (3)
ACCT 436	Internal Auditing (3) or any upper-level ACCT course
ACCT 438	Fraud and Forensic Accounting (3) or any upper-level ACCT course

* Requirements for CPA certification vary from state to state. See p. 320 or umgc.edu/professional-licensure for more information.

BACHELOR'S DEGREE PROGRAMS CURRICULA

RELATED REQUIRED COURSES

Note: The following required courses may be applied to general education or elective requirements.

BMGT 364	Management and Organization Theory
BMGT 380	Business Law I
ECON 201	Principles of Macroeconomics
ECON 203	Principles of Microeconomics
FINC 330	Business Finance
MRKT 310	Marketing Principles
STAT 200	Introduction to Statistics
ACCT 411	Ethics and Professionalism in Accounting or <i>BMGT 496 Business Ethics</i>
WRTG 293	Introduction to Professional Writing or <i>COMM 390 Writing for Managers</i> or <i>WRTG 394 Advanced Business Writing</i>

Course Sequencing

The following table is designed to provide an optimal order for taking both required and recommended general education, major, and elective courses for this program. Your plan will be unique to you, based on your previous education and credit earned. See pp. 40–42 for information on general education and overall requirements for completing a bachelor's degree. Contact an advisor with all questions about your official plan.

Major and related requirements are listed in **bold**.

BS IN ACCOUNTING	
Recommended and Required Courses	Requirement(s) Fulfilled
LIBS 150 Introduction to Research (1)	General education/computing and research
PACE 111B Program and Career Exploration in Business (3)	General education/computing and research
WRTG 111 Academic Writing I (3)	General education/communications
IFSM 201 Concepts and Applications of Information Technology (3)	General education/computing and research
NUTR 100 Elements of Nutrition (3)	General education/biological and physical sciences
ACCT 220 Introduction to Statistics (3)	Major
WRTG 112 Academic Writing II (3)	General education/communications
STAT 200 Introduction to Statistics (3)	Related and general education/mathematics
WRTG 293 Introduction to Professional Writing (3)	Related and general education/communications
ACCT 221 Principles of Accounting II (3)	Major

HIST 125 Technological Transformations (3)	General education/arts and humanities
BIOL 103 Introduction to Biology (4)	General education/biological and physical sciences
ECON 201 Principles of Macroeconomics (3)	Related and general education/behavioral and social sciences
ARTH 334 Understanding Movies (3)	General education/arts and humanities
CSIA 300 Cybersecurity for Leaders and Managers (3)	Elective
ECON 203 Principles of Microeconomics (3)	Related and general education/behavioral and social sciences
ACCT 310 Intermediate Accounting I (3)	Major
IFSM 300 Foundations of Information Systems Management (3)	Elective
ACCT 311 Intermediate Accounting II (3)	Major
Elective (3)	Elective
ACCT 326 Accounting Information Systems (3)	Major
CSIA 310 Cybersecurity Processes and Technologies (3)	Elective
ACCT 321 Cost Accounting (3)	Major
WRTG 394 Advanced Business Writing (3)	General education/communications
FINC 328 Small Business Finance (3)	Elective
ACCT 323 Federal Income Tax I (3)	Major
ACCT 411 Ethics and Professionalism in Accounting (3)	Related and elective
Elective (3)	Elective
ACCT 410 Accounting for Government and Not-for-Profit Organizations (3)	Major
BMGT 364 Management and Organization Theory (3)	Related and elective
IFSM 438 Information Systems Project Management (3)	Elective
ACCT 422 Auditing Theory and Practice (3)	Major
BMGT 380 Business Law I (3)	Related and elective
Elective (3)	Elective
ACCT 424 Advanced Accounting (3)	Major
FINC 330 Business Finance (3)	Related and elective
Elective (3)	Elective
ACCT 436 Internal Auditing (3)	Major
MRKT 310 Marketing Principles (3)	Related and elective
ACCT 438 Fraud and Forensic Accounting (3)	Major
Elective (1)	Elective

BACHELOR'S DEGREE PROGRAMS

CURRICULA

Minor in Accounting

The accounting minor complements the skills you gain in your major discipline by providing a study of how the accounting environment measures and communicates the economic activities of organizations to enable stakeholders to make informed decisions regarding the allocation of limited resources.

Courses in the Minor (15 Credits)

A minor in accounting requires the completion of 15 credits of coursework in accounting. Any ACCT courses apply.

Courses already applied toward other degree requirements (e.g., major or general education) may not be applied toward the minor. At least 9 credits must be earned in upper-level courses (numbered 300 or above). Prerequisites apply for all courses.

For a listing of all the requirements for the bachelor's degree, refer to your major and pp. 40–42.

African American Studies

You may seek an academic minor in African American studies.

Minor in African American Studies

The African American studies minor complements the skills you gain in your major discipline by offering an interdisciplinary approach to the study of the contemporary life, history, and culture of African Americans.

Courses in the Minor (15 Credits)

A minor in African American studies requires the completion of 15 credits of coursework focusing on African American issues, chosen from the following:

AASP 201	Introduction to African American Studies
ENGL 363	African American Authors from the Colonial Era to 1900
ENGL 364	African American Authors from 1900 to the Present
HIST 461	African American History: 1865 to the Present
SOCY 423	Race and Ethnicity: A Global Perspective

Any African American studies course

It is recommended that you take AASP 201 as the first course in the minor (if you have not already applied the course toward other degree requirements).

Courses already applied toward other degree requirements (e.g., major or general education) may not be applied toward the minor. At least 9 credits must be earned in upper-level courses (numbered 300 or above). Prerequisites apply for all courses.

For a listing of all the requirements for the bachelor's degree, refer to your major and pp. 40–42.

Art

You may seek an academic minor in art.

Minor in Art

The art minor complements the skills you gain in your major discipline by offering an aesthetic and personal exploration of imagery, media, and composition through a balance of art theory and practice.

Courses in the Minor (15 Credits)

A minor in art requires the completion of the following courses:

ARTT 110	Introduction to Drawing (3)
ARTT 152	Basics of Photography (3)
ARTT 210	Intermediate Drawing (3)
ARTT 320	Painting I (3)
ARTT 428	Advanced Painting (3)

Courses already applied toward other degree requirements (e.g., major or general education) may not be applied toward the minor. At least 6 credits must be earned in upper-level courses (numbered 300 or above). Prerequisites apply for all courses.

For a listing of all the requirements for the bachelor's degree, refer to your major and pp. 40–42.

Art History

You may seek an academic minor in art history.

Minor in Art History

The art history minor complements the skills you gain in your major discipline by helping to develop skills in historical and cultural interpretation and critical analysis of works of architecture, sculpture, painting, and the applied arts.

BACHELOR'S DEGREE PROGRAMS CURRICULA

Courses in the Minor (15 Credits)

A minor in art history requires the completion of the following courses:

ARTH 204	Film and American Culture Studies (3)
ARTH 334	Understanding Movies (3)
ARTH 372	History of Western Art I (3)
ARTH 373	History of Western Art II (3)
ARTH 375	History of Graphic Art (3)

Courses already applied toward other degree requirements (e.g., major or general education) may not be applied toward the minor. At least 9 credits must be earned in upper-level courses (numbered 300 or above). Prerequisites apply for all courses.

For a listing of all the requirements for the bachelor's degree, refer to your major and pp. 40–42.

Biology

You may seek an academic minor in biology.

Minor in Biology

The biology minor complements the skills you gain in your major discipline by helping to provide an underlying scientific base on which to build a career in the life sciences, allied health fields, bioinformatics, environmental management, science journalism, or science education.

Courses in the Minor (15 Credits)

A minor in biology requires the completion of 15 credits of coursework in biology. All BIOL courses apply.

Courses already applied toward other degree requirements (e.g., major or general education) may not be applied toward the minor. At least 9 credits must be earned in upper-level courses (numbered 300 or above). Prerequisites apply for all courses.

For a listing of all the requirements for the bachelor's degree, refer to your major and pp. 40–42.

Biotechnology

If you have completed the required lower-level coursework for the biotechnology major—either within an Associate of Applied Science degree program at a community college with which UMGC has an articulation agreement or within another appropriate transfer program—you may seek an academic major in biotechnology. Consult an advisor before electing this major.

Major in Biotechnology

The major in biotechnology combines laboratory skills and applied coursework with a biotechnology internship experience and upper-level study.

For this program, you are required to have already gained technical and scientific knowledge of biotechnology through transferred coursework and direct experience in the field. Contact an advisor to confirm your eligibility.

What You'll Learn

Through your coursework, you will learn how to

- Practice ethical standards of integrity, honesty, and fairness in scientific practices and professional conduct
- Communicate orally and in writing in a clear, well-organized manner that effectively informs and clarifies scientific principles and lab techniques
- Offer technical support, customer assistance, and cost-benefit analyses regarding biotechnical approaches to the development of products and services
- Use scientific procedures and current and emerging technologies to conduct safe and hygienic laboratory experiments and collect validated and documented data
- Comply with and adhere to national, state, and local standards, policies, protocols, and regulations for laboratory and manufacturing activity
- Apply scientific knowledge and principles, quantitative methods, and technology to think critically and solve complex problems in biotechnology

BACHELOR'S DEGREE PROGRAMS CURRICULA

Degree Requirements

BS OR BTPS IN BIOTECHNOLOGY

	Credits
General Education Courses	41
Required Major Courses	36
Minor and Elective Courses	43
Total	120

REQUIRED MAJOR COURSES (36 CREDITS)

BIOL 325	Inquiries in Biological Science (3)
BIOL 350	Molecular and Cellular Biology (3)
BIOL 357	Bioinformatics (3)
NSCI 301	Laboratory Management and Safety (3)
BIOL 486A/B	Workplace Learning in Biology (6)
BIOL 495	Current Trends and Applications in the Life Sciences (3)

The following lower-level courses in transfer:

General microbiology with microbiology laboratory (4)
General genetics with genetics laboratory (4)
Biotechnology applications and techniques with laboratory (7) chosen from the following academic areas: biotechnology, biochemistry, cell biology, chemistry, genetics, immunology, microbiology, molecular biology, physics, and virology

RELATED REQUIRED COURSES

Note: The following required courses may be applied to general education or elective requirements.

Science coursework in biotechnology, biochemistry, cell biology, chemistry, genetics, immunology, microbiology, molecular biology, physics, and virology courses, to total 17 credits

Course Sequencing

See pp. 40–42 for information on general education and overall requirements for completing a bachelor's degree. Contact an advisor if you have any questions about your academic advisement report.

Business Administration

You may seek either an academic major or minor in business administration.

Major in Business Administration

In the business administration major, you'll gain a well-rounded education that provides foundational, workplace-relevant management skills, organizational theory, and operational knowledge.

UMGC's career-focused bachelor's degree program in business administration is designed to help you compete for the jobs of today and tomorrow by building a comprehensive base of knowledge. This major will help you prepare for a variety of positions in for-profit, nonprofit, and public-sector organizations.

What You'll Learn

Through your coursework, you will learn how to

- Plan and communicate a shared vision for the organization that will drive strategy, assist with decision making, and position the organization competitively
- Design and create management and leadership plans
- Evaluate qualitative and quantitative data
- Communicate effectively across all levels of an organization
- Develop, communicate, and implement policies and procedures to reduce cost and organizational risk and promote ethical practices
- Manage people, time, and resources by using effective employment practices, encouraging team building, and mentoring junior members of the staff
- Design and execute personal and employee development systems to enhance job performance and leadership skills

Degree Requirements

BS IN BUSINESS ADMINISTRATION

	Credits
General Education Courses	41
Required Major Courses	33
Minor and Elective Courses	46
Total	120

BACHELOR'S DEGREE PROGRAMS CURRICULA

REQUIRED MAJOR COURSES (33 CREDITS)

BMGT 110	Introduction to Business and Management (3)
ACCT 220	Principles of Accounting I (3)
ACCT 221	Principles of Accounting II (3)
BMGT 364	Management and Organization Theory (3)
BMGT 365	Organizational Leadership (3)
MRKT 310	Marketing Principles (3)
BMGT 380	Business Law I (3)
HRMN 300	Human Resource Management (3)
FINC 330	Business Finance (3)
BMGT 496	Business Ethics (3)
BMGT 495	Strategic Management (3)

RELATED REQUIRED COURSES

Note: The following required courses may be applied to general education or elective requirements.

ECON 201	Principles of Macroeconomics
ECON 203	Principles of Microeconomics
IFSM 300	Information Systems in Organizations
STAT 200	Introduction to Statistics

Course Sequencing

The following table is designed to provide an optimal order for taking both required and recommended general education, major, and elective courses for this program. Your plan will be unique to you, based on your previous education. See pp. 40–42 for information on general education and overall requirements for completing a bachelor's degree. Contact an advisor if you have any questions about your academic advisement report.

Major and related requirements are listed in **bold**.

BS IN BUSINESS ADMINISTRATION	
Recommended and Required Courses	Requirement(s) Fulfilled
LIBS 150 Introduction to Research (1)	General education/computing and research
PACE 111B Program and Career Exploration in Business (3)	General education/computing and research
WRWG 111 Academic Writing I (3)	General education/communications
WRWG 112 Academic Writing II (3)	General education/communications
NUTR 100 Elements of Nutrition (3)	General education/biological and physical sciences
BMGT 110 Introduction to Business and Management (3)	Major
SPCH 100 Foundations of Oral Communication (3)	General education/communications

STAT 200 Introduction to Statistics (3)	Related and general education/mathematics
IFSM 300 Information Systems in Organizations (3)	Related and general education/computing and research
ACCT 220 Principles of Accounting I (3)	Major
HUMN 100 Introduction to Humanities (3)	General education/arts and humanities
BIOL 103 Introduction to Biology (4)	General education/biological and physical sciences
ECON 201 Principles of Macroeconomics (3)	Related and general education/behavioral and social sciences
ARTH 334 Understanding Movies (3)	General education/arts and humanities
Elective (3)	Elective
ECON 203 Principles of Microeconomics (3)	Related and general education/behavioral and social sciences
ACCT 221 Principles of Accounting II (3)	Major
Elective (3)	Elective
BMGT 364 Management and Organization Theory (3)	Major
Elective (3)	Elective
BMGT 365 Organizational Leadership (3)	Major
Elective (3)	Elective
MRKT 310 Marketing Principles (3)	Major
WRWG 394 Advanced Business Writing (3)	General education/communications
Elective (3)	Elective
BMGT 380 Business Law I (3)	Major
Elective (3)	Elective
Elective (3)	Elective
HRMN 300 Human Resource Management (3)	Major
Elective (3)	Elective
Elective (3)	Elective
FINC 330 Business Finance (3)	Major
Elective (3)	Elective
Elective (3)	Elective
BMGT 496 Business Ethics (3)	Major
Elective (3)	Elective
BMGT 495 Strategic Management (3)	Major/capstone
Elective (1)	Elective

BACHELOR'S DEGREE PROGRAMS CURRICULA

Minor in Business Administration

The business administration minor complements the skills you gain in your major discipline by providing a study of principles and techniques used in organizing, planning, managing, and leading within various organizations.

Courses in the Minor (15 Credits)

A minor in business administration requires the completion of 15 credits of coursework in business administration. Any ACCT, BMGT, FINC, HMG, HRMN, and MRKT courses apply. It is recommended that you take BMGT 364 as the first course in the minor (if you have not already applied the course to other requirements).

Courses already applied toward other degree requirements (e.g., major or general education) may not be applied toward the minor. At least 9 credits must be earned in upper-level courses (numbered 300 or above). Prerequisites apply for all courses.

For a listing of all the requirements for the bachelor's degree, refer to your major and pp. 40–42.

Communication Studies

You may seek either an academic major or minor in communication studies.

Major in Communication Studies

Whether you're interested in journalism, public relations, business, or digital communications, you can build a firm base of knowledge while you earn a bachelor's degree in communication studies at UMGC. In this major, you'll learn about and apply communication theories and best practices to communicate about events and ideas to various populations. In addition, you'll learn to work with individuals and groups professionally and manage communications within ethical, legal, and financial parameters.

What You'll Learn

Through your coursework, you will learn how to

- Apply analytical skills in interpreting, using, and delivering information, particularly through mass media
- Create professional and appropriate written, oral, and visual communications for specific purposes and diverse audiences
- Design, create, and select multimedia components and integrate them into print, broadcast, and online formats
- Work with individuals and groups in ways that reflect an understanding of both communication theory and professional expectations

- Understand diverse and intercultural perspectives as they affect communication
- Design and employ specific research methods and tools to gather information

Degree Requirements

BA IN COMMUNICATION STUDIES

	Credits
General Education Courses	41
Required Major Courses	33
Minor and Elective Courses	46
Total	120

REQUIRED MAJOR COURSES (33 CREDITS)

SPCH 100	Foundations of Oral Communication (3) <i>or any SPCH course</i>
COMM 207	Understanding Visual Communication (3) <i>or any COMM course</i>
JOUR 201	Introduction to News Writing (3)
COMM 300	Communication Theory (3)
COMM 302	Mass Communication and Media Studies (3)
SPCH 324	Communication and Gender (3)
JOUR 330	Public Relations Theory (3) <i>or any upper-level JOUR course</i>
COMM 400	Mass Media Law (3) <i>or any upper-level COMM course</i>
SPCH 470	Effective Listening (3) <i>or any upper-level SPCH course</i>
COMM 390	Writing for Managers (3) <i>or any upper-level COMM course</i>
COMM 495	Senior Seminar in Communication Studies (3)

Course Sequencing

The following table is designed to provide an optimal order for taking both required and recommended general education, major, and elective courses for this program. Your plan will be unique to you, based on your previous education. See pp. 40–42 for information on general education and overall requirements for completing a bachelor's degree. Contact an advisor if you have any questions about your academic advisement report.

BACHELOR'S DEGREE PROGRAMS CURRICULA

Major and related requirements are listed in **bold**.

BA IN COMMUNICATION STUDIES	
Recommended and Required Courses	Requirement(s) Fulfilled
LIBS 150 Introduction to Research (1)	General education/computing and research
PACE 111C Program and Career Exploration in Communication/Humanities (3)	General education/computing and research
WRTG 111 Academic Writing I (3)	General education/communications
SPCH 100 Foundations of Oral Communication (3)	Major
NUTR 100 Elements of Nutrition (3)	General education/biological and physical sciences
COMM 207 Understanding Visual Communication (3)	Major
WRTG 112 Academic Writing II (3)	General education/communications
MATH 105 Topics for Mathematical Literacy (3)	General education/mathematics
COMM 202 Media and Society (3)	General education/communications
JOUR 201 Introduction to News Writing (3)	Major
HUMN 100 Introduction to Humanities (3)	General education/arts and humanities
BIOL 103 Introduction to Biology (4)	General education/biological and physical sciences
BEHS 103 Technology in Contemporary Society (3)	General education/behavioral and social sciences
ARTH 334 Understanding Movies (3)	General education/arts and humanities
IFSM 201 Concepts and Applications of Information Technology (3)	General education/computing and research
ECON 103 Economics in the Information Age (3)	General education/behavioral and social sciences
COMM 300 Communication Theory (3)	Major
Elective (3)	Elective
COMM 302 Mass Communication and Media Studies (3)	Major
Elective (3)	Elective
SPCH 324 Communication and Gender (3)	Major
Elective (3)	Elective
JOUR 330 Public Relations Theory (3)	Major

WRTG 391 Advanced Research Writing (3)	General education/communications
Elective (3)	Elective
COMM 400 Mass Media Law (3)	Major
Elective (3)	Elective
Elective (3)	Elective
SPCH 470 Effective Listening (3)	Major
Elective (3)	Elective
Elective (3)	Elective
COMM 390 Writing for Managers (3)	Major
Elective (3)	Elective
COMM 495 Senior Seminar in Communication Studies (3)	Major/capstone
Elective (1)	Elective

Minor in Communication Studies

The communication studies minor complements the skills you gain in your major discipline by helping you develop specialized skills in workplace communication, including written and oral communication skills and a greater understanding of human interaction.

Courses in the Minor (15 Credits)

A minor in communication studies requires the completion of 15 credits of coursework in communication studies. All COMM, JOUR, SPCH, and WRTG courses apply. It is recommended that you take COMM 300 early in the minor (if you have not already applied the course toward other degree requirements).

Courses already applied toward other degree requirements (e.g., major or general education) may not be applied toward the minor. At least 9 credits must be earned in upper-level courses (numbered 300 or above). Prerequisites apply for all courses.

For a listing of all the requirements for the bachelor's degree, refer to your major and pp. 40–42.

BACHELOR'S DEGREE PROGRAMS

CURRICULA

Computer Networks and Cybersecurity

You may seek an academic major in computer networks and cybersecurity.

Major in Computer Networks and Cybersecurity

In UMGC's award-winning program in computer networks and cybersecurity, you'll learn the operational procedures and technologies to design, implement, administer, secure, and troubleshoot corporate networks.

Designed to combine the benefits of a traditional college education with hands-on training in state-of-the-art computer technology, the computer networks and cybersecurity curriculum integrates technical skill with communication skills and superior general education knowledge.

UMGC was named a National Center of Academic Excellence in Cyber Defense Education by the National Security Agency and the Department of Homeland Security. UMGC is also a designated National Center of Digital Forensics Academic Excellence (CDFAE) institution.

What You'll Learn

Through your coursework, you will learn how to

- Design, implement, and administer local-area and wide-area networks to satisfy organizational goals
- Resolve IT system problems and meet the needs of end users by applying troubleshooting methodologies
- Apply relevant policies and procedures to effectively secure and monitor IT systems
- Communicate IT knowledge effectively using a wide range of presentation styles
- Meet organizational goals using effective workforce skills, best practices, and ethical principles

INDUSTRY CERTIFICATION

This program is designed to help prepare you for the following certification exams, listed in alphabetical order:

- AWS Certified Cloud Practitioner
- Certified Computer Examiner (CCE)
- Certified Ethical Hacker (CEH)

- Certified Information Systems Security Professional (CISSP)
- Cisco Certified Network Associate (CCNA)
- CompTIA A+
- CompTIA Cloud+
- CompTIA Cybersecurity Analyst
- CompTIA Linux+ and LPIC-1
- CompTIA Network+
- CompTIA Security+
- Computer Security Incident Handler (CSIH)

The computer networks and cybersecurity curriculum is closely aligned to industry standards and certifications. Changes related to leading industry certifications may lead to adjustments in course offerings. Visit the program web page for updates.

Vertical Pathway

If you complete your undergraduate degree at UMGC with a major in computer networks and cybersecurity, a vertical pathway between the undergraduate and graduate programs in this field allows you to earn 6 credits toward the Master of Science in Cloud Computing Architecture, Cyber Operations, Cybersecurity Management and Policy, Cybersecurity Technology, or Digital Forensics and Cyber Investigation and/or a certificate in Cloud Computing and Networking, Cyber Operations, Cybersecurity Management and Policy, Cybersecurity Technology, or Digital Forensics and Cyber Investigation. Details are on p. 20.

Degree Requirements

BS IN COMPUTER NETWORKS AND CYBERSECURITY

	Credits
General Education Courses	41
Required Major Courses	33
Minor and Elective Courses	46
Total	120

BACHELOR'S DEGREE PROGRAMS CURRICULA

REQUIRED MAJOR COURSES (33 CREDITS)

CMIT 202	Fundamentals of Computer Troubleshooting (3)
CMIT 265	Fundamentals of Networking (3)
CMIT 320	Network Security (3)
CMIT 321	Ethical Hacking (3)
CMIT 326	Cloud Technologies (3)
CMIT 350	Interconnecting Cisco Devices (3)
CMIT 391	Linux System Administration (3)
CMIT 495	Current Trends and Projects in Computer Networks and Cybersecurity (3)

Three upper-level courses chosen from any upper-level CMIT courses and CCJS 321 (9)

Course Sequencing

The following table is designed to provide an optimal order for taking both required and recommended general education, major, and elective courses for this program. Your plan will be unique to you, based on your previous education. See pp. 40–42 for information on general education and overall requirements for completing a bachelor's degree. Contact an advisor if you have any questions about your academic advisement report.

Major and related requirements are listed in **bold**.

BS IN COMPUTER NETWORKS AND CYBERSECURITY	
Recommended and Required Courses	Requirement(s) Fulfilled
LIBS 150 Introduction to Research (1)	General education/computing and research
PACE 111T Program and Career Exploration in Technology (3)	General education/computing and research
WRWG 111 Academic Writing I (3)	General education/communications
IFSM 201 Concepts and Applications of Information Technology (3)	Prerequisite and general education/computing and research
NUTR 100 Elements of Nutrition (3)	General education/biological and physical sciences
CMIT 202 Fundamentals of Computer Troubleshooting (3)	Major
SPCH 100 Foundations of Oral Communication (3)	General education/communications
MATH 107 College Algebra (3)	General education/mathematics
WRWG 112 Academic Writing II (3)	General education/communications
CMIT 265 Fundamentals of Networking (3)	Major
HIST 125 Technological Transformations (3)	General education/arts and humanities

BIOL 103 Introduction to Biology (4)	General education/biological and physical sciences
BEHS 103 Technology in Contemporary Society (3)	General education/behavioral and social sciences
ARTH 334 Understanding Movies (3)	General education/arts and humanities
Elective (3)	Elective
ECON 103 Economics in the Information Age (3)	General education/behavioral and social sciences
CMIT 320 Network Security (3)	Major
Elective (3)	Elective
CMIT 321 Ethical Hacking (3)	Major
Elective (3)	Elective
CMIT 350 Interconnecting Cisco Devices (3)	Major
Elective (3)	Elective
CMIT 326 Cloud Technologies (3)	Major
WRWG 393 Advanced Technical Writing (3)	General education/communications
Elective (3)	Elective
CMIT 391 Linux System Administration (3)	Major
Elective (3)	Elective
Elective (3)	Elective
CMIT 421 Threat Management and Vulnerability Assessment (3)	Major
Elective (3)	Elective
Elective (3)	Elective
CMIT 425 Advanced Information System Security (3)	Major
Elective (3)	Elective
Elective (3)	Elective
CCJS 321 Digital Forensics in the Criminal Justice System (3)	Major
Elective (3)	Elective
CMIT 495 Current Trends and Projects in Computer Networks and Cybersecurity (3)	Major/capstone
Elective (1)	Elective

BACHELOR'S DEGREE PROGRAMS

CURRICULA

Honor Society

Information on eligibility for membership in the UMGC chapter of Upsilon Pi Epsilon, the international honor society for the computing and information disciplines, is available on p. 292.

Computer Science

You may seek either an academic major or minor in computer science.

Major in Computer Science

With a bachelor's degree in computer science, you'll be able to plan, design, and optimize computer software and hardware systems for commercial and government environments. This versatile major provides you with a foundation in programming languages, software development, complex algorithms, and graphics and visualization.

What You'll Learn

Through your coursework, you will learn how to

- Identify and respond to emerging technology, models, methodologies, systems, and trends in human/computer interaction, including social networking, gaming, modeling, and simulation
- Apply logic and mathematical principles to the design, development, and verification of secure, high-performance, and reliable computing systems
- Analyze, design, develop, and document secure technical solutions for computing systems and networking infrastructure
- Plan, design, and optimize computing architecture, software applications, data, and systems
- Adhere to local, national, and international technical standards, ethics, and intellectual property regulations when developing computer applications and systems
- Analyze, compare, and contrast algorithms, programming languages, compilers, and operating systems to select or develop solutions to problems

Vertical Pathway

If you complete your undergraduate degree at UMGC with a major in computer science, a vertical pathway between UMGC's undergraduate and graduate programs allows you to reduce your total coursework for the Master of Arts in Teaching by 12 credits (three courses), including the noncredit introductory course UCSP 615. Details are on p. 20.

Degree Requirements

BS IN COMPUTER SCIENCE

	Credits
General Education Courses	41
Required Major Courses	36
Minor and Elective Courses	43
Total	120

REQUIRED MAJOR COURSES (36 CREDITS)

CMIS 141	Introductory Programming (3)
CMIS 242	Intermediate Programming (3)
CMIS 310	Computer Systems and Architecture (3)
SDEV 300	Building Secure Python Applications (3)
CMSC 350	Data Structures and Analysis (3)
CMSC 330	Advanced Programming Languages (3)
CMSC 335	Object-Oriented and Concurrent Programming (3)
CMSC 430	Compiler Theory and Design (3)
CMSC 451	Design and Analysis of Computer Algorithms (3)
CMSC 412	Operating Systems (3)
CMSC 405	Computer Graphics (3)
CMSC 495	Current Trends and Projects in Computer Science (3)

RELATED REQUIRED COURSES

Note: The following required courses may be applied to general education or elective requirements.

MATH 140	Calculus I
MATH 141	Calculus II
CMSC 150	Introduction to Discrete Structures
CMIS 102	Introduction to Problem Solving and Algorithm Design

Course Sequencing

The following table is designed to provide an optimal order for taking both required and recommended general education, major, and elective courses for this program. Your plan will be unique to you, based on your previous education. See pp. 40–42 for information on general education and overall requirements for completing a bachelor's degree. Contact an advisor if you have any questions about your academic advisement report.

BACHELOR'S DEGREE PROGRAMS CURRICULA

Major and related requirements are listed in **bold**.

BS IN COMPUTER SCIENCE	
Recommended and Required Courses	Requirement(s) Fulfilled
LIBS 150 Introduction to Research (1)	General education/computing and research
PACE 111T Program and Career Exploration in Technology (3)	General education/computing and research
WRWG 111 Academic Writing I (3)	General education/communications
CMIS 102 Introduction to Problem Solving and Algorithm Design (3)	Related and general education/computing and research
NUTR 100 Elements of Nutrition (3)	General education/biological and physical sciences
CMIS 141 Introductory Programming (3)	Major
SPCH 100 Foundations of Oral Communication (3)	General education/communications
MATH 140 Calculus I (4)	Related and general education/mathematics
WRWG 112 Academic Writing II (3)	General education/communications
CMIS 242 Intermediate Programming (3)	Major
HIST 125 Technological Transformations (3)	General education/arts and humanities
BIOL 103 Introduction to Biology (4)	General education/biological and physical sciences
BEHS 103 Technology in Contemporary Society (3)	General education/behavioral and social sciences
ARTH 334 Understanding Movies (3)	General education/arts and humanities
CMSC 150 Introduction to Discrete Structures (3)	Related and elective
ECON 103 Economics in the Information Age (3)	General education/behavioral and social sciences
CMIS 310 Computer Systems and Architecture (3)	Major
MATH 141 Calculus II (4)	Related and elective
SDEV 300 Building Secure Python Applications (3)	Major
Elective (3)	Elective
CMSC 350 Data Structures and Analysis (3)	Major
Elective (3)	Elective
CMSC 330 Advanced Programming Languages (3)	Major
WRWG 393 Advanced Technical Writing (3)	General education/communications

Elective (3)	Elective
CMSC 335 Object-Oriented and Concurrent Programming (3)	Major
Elective (3)	Elective
Elective (3)	Elective
CMSC 430 Compiler Theory and Design (3)	Major
Elective (3)	Elective
Elective (3)	Elective
CMSC 451 Design and Analysis of Computer Algorithms (3)	Major
Elective (3)	Elective
Elective (3)	Elective
CMSC 412 Operating Systems (3)	Major
Elective (3)	Elective
CMSC 405 Computer Graphics (3)	Major
Elective (3)	Elective
CMSC 495 Current Trends and Projects in Computer Science (3)	Major/capstone
Elective (2)	Elective

Minor in Computer Science

The computer science minor complements the skills you gain in your major discipline by providing the foundations for designing and programming computer applications in support of most occupations and developing a process for solving challenging problems.

Courses in the Minor (15 Credits)

A minor in computer science requires the completion of 15 credits in computer science coursework, including the following two-course sequence in programming:

- CMIS 141 Introductory Programming (3)
- CMIS 242 Intermediate Programming (3)

The remaining 9 credits may be chosen from any upper-level CMSC courses (i.e., courses numbered 300 or above).

Courses already applied toward other degree requirements (e.g., major or general education) may not be applied toward the minor. At least 9 credits must be earned in upper-level courses (numbered 300 or above). Prerequisites apply for all courses.

For a listing of all the requirements for the bachelor's degree, refer to your major and pp. 40–42.

BACHELOR'S DEGREE PROGRAMS CURRICULA

Honor Society

Information on eligibility for membership in the UMGC chapter of Upsilon Pi Epsilon, the national academic honor society for the computing and information disciplines, is available on p. 292.

Criminal Justice

You may seek either an academic major or minor in criminal justice.

Major in Criminal Justice

Located a stone's throw from the FBI, CIA, and NSA—and the major metropolitan areas of Washington, D.C., and Baltimore, Maryland—UMGC is home to industry leaders who protect cities and the nation from some of our greatest threats. Our criminal justice program can help provide you with an understanding of the nature of crime and the personnel, institutions, and processes that prevent and respond to crime.

What You'll Learn

Through your coursework, you will learn how to

- Apply critical-thinking skills and logic to analyze and solve a variety of complex problems in the criminal justice environment
- Manage and evaluate organizational efforts to ensure effective cooperation with stakeholders to prevent, control, and manage crime to ensure public safety
- Use an ethical framework and an understanding of legal constraints to make decisions as a criminal justice professional
- Develop specialized technical knowledge and skills relevant to subspecialties in the field of criminal justice to ensure public safety
- Use interpersonal and leadership skills to work both independently and cooperatively as a member of a criminal justice team

Vertical Pathway

If you complete your undergraduate degree at UMGC with a major in criminal justice, a vertical pathway between UMGC's undergraduate and graduate programs in that field allows you to reduce your total coursework for the Master of Science in Management with a specialization in criminal justice management at UMGC by 6 credits (two courses). Details are on p. 20.

Degree Requirements

BS IN CRIMINAL JUSTICE

	Credits
General Education Courses	41
Required Major Courses	33
Minor and Elective Courses	46
Total	120

REQUIRED MAJOR COURSES (33 CREDITS)

CCJS 100	Introduction to Criminal Justice (3) <i>or CCJS 105 Introduction to Criminology</i>
CCJS 340	Law Enforcement Administration (3)
CCJS 497	Correctional Administration (3)
CCJS 345	Introduction to Security Management (3)
CCJS 350	Juvenile Delinquency (3) <i>or any upper-level CCJS course</i>
CCJS 230	Criminal Law in Action (3)
CCJS 360	Victimology (3) <i>or any upper-level CCJS course</i>
CCJS 380	Ethical Behavior in Criminal Justice (3)
CCJS 341	Criminal Investigation (3)
CCJS 352	Drugs and Crime (3) <i>or any upper-level CCJS course</i>
CCJS 495	Issues in Criminal Justice (3)

Course Sequencing

The following table is designed to provide an optimal order for taking both required and recommended general education, major, and elective courses for this program. Your plan will be unique to you, based on your previous education. See pp. 40–42 for information on general education and overall requirements for completing a bachelor's degree. Contact an advisor if you have any questions about your academic advisement report.

BACHELOR'S DEGREE PROGRAMS CURRICULA

Major and related requirements are listed in **bold**.

BS IN CRIMINAL JUSTICE	
Recommended and Required Courses	Requirement(s) Fulfilled
LIBS 150 Introduction to Research (1)	General education/computing and research
PACE 111P Program and Career Exploration in Public Safety (3)	General education/computing and research
WRWG 111 Academic Writing I (3)	General education/communications
IFSM 201 Concepts and Applications of Information Technology (3)	General education/computing and research
NUTR 100 Elements of Nutrition (3)	General education/biological and physical sciences
CCJS 100 Introduction to Criminal Justice (3)	Major
SPCH 100 Foundations of Oral Communication (3)	General education/communications
MATH 105 Topics for Mathematical Literacy (3)	General education/mathematics
WRWG 112 Academic Writing II (3)	General education/communications
CCJS 230 Criminal Law in Action (3)	Major
HUMN 100 Introduction to Humanities (3)	General education/arts and humanities
BIOL 103 Introduction to Biology (4)	General education/biological and physical sciences
BEHS 103 Technology in Contemporary Society (3)	General education/behavioral and social sciences
HIST 125 Technological Transformations (3)	General education/arts and humanities
Elective (3)	Elective
ECON 103 Economics in the Information Age (3)	General education/behavioral and social sciences
CCJS 340 Law Enforcement Administration (3)	Major
Elective (3)	Elective
CCJS 497 Correctional Administration (3)	Major
Elective (3)	Elective
CCJS 345 Introduction to Security Management (3)	Major
Elective (3)	Elective
CCJS 350 Juvenile Delinquency (3)	Major

WRWG 391 Advanced Research Writing (3)	General education/communications
Elective (3)	Elective
CCJS 360 Victimology (3)	Major
Elective (3)	Elective
Elective (3)	Elective
CCJS 380 Ethical Behavior in Criminal Justice (3)	Major
Elective (3)	Elective
Elective (3)	Elective
CCJS 341 Criminal Investigation (3)	Major
Elective (3)	Elective
Elective (3)	Elective
CCJS 352 Drugs and Crime (3)	Major
Elective (3)	Elective
CCJS 495 Issues in Criminal Justice (3)	Major/capstone
Elective (1)	Elective

Minor in Criminal Justice

The criminal justice minor complements the skills you gain in your major discipline by providing a study of crime, law enforcement, courts, corrections, security, and investigative forensics.

Courses in the Minor (15 Credits)

A minor in criminal justice requires the completion of 15 credits of coursework in criminal justice. Any CCJS courses apply. It is recommended that you take CCJS 100 or CCJS 105 as the first course in the minor (if you have not already applied the course toward other degree requirements).

Courses already applied toward other degree requirements (e.g., major or general education) may not be applied toward the minor. At least 9 credits must be earned in upper-level courses (numbered 300 or above). Prerequisites apply for all courses.

For a listing of all the requirements for the bachelor's degree, refer to your major and pp. 40–42.

BACHELOR'S DEGREE PROGRAMS

CURRICULA

Cybersecurity

Minor in Cybersecurity

The cybersecurity minor complements the skills you gain in your major discipline by providing a study of the principles, issues, and technologies pertinent to the field of cybersecurity.

Courses in the Minor (15 Credits)

A minor in cybersecurity requires the completion of 15 credits of coursework in cybersecurity. All CSIA and CMIT courses apply.

Courses already applied toward other degree requirements (e.g., major or general education) may not be applied toward the minor. At least 9 credits must be earned in upper-level courses (numbered 300 or above). Prerequisites apply for all courses.

For a listing of all the requirements for the bachelor's degree, refer to your major and pp. 40–42.

Cybersecurity Management and Policy

You may seek an academic major in cybersecurity management and policy.

Major in Cybersecurity Management and Policy

In UMGC's bachelor's degree program in cybersecurity management and policy, you can prepare to become a leader in the protection of data. This innovative, world-class program uses a multidisciplinary approach—drawing from fields such as management, law, science, business, technology, and psychology—to provide you with the most current knowledge and skills for protecting critical cyber infrastructure and assets.

UMGC was named a National Center of Academic Excellence in Cyber Defense Education by the National Security Agency and the Department of Homeland Security.

What You'll Learn

Through your coursework, you will learn how to

- Protect an organization's critical information and assets by ethically integrating cybersecurity best practices and risk management throughout an enterprise
- Integrate continuous monitoring and real-time security solutions with information collection, sharing, collaboration, and analysis capabilities to improve situational awareness and deployment of countermeasures in industry and government
- Evaluate and assess the use of technology to support cybersecurity goals and objectives
- Participate in the investigation of cyber incidents and assist in recovery of operations
- Formulate, update, and communicate short- and long-term organizational cybersecurity strategies and policies

INDUSTRY CERTIFICATION

This program is designed to help prepare you for the following certification exams, listed in alphabetical order:

- Certified Information Privacy Professional/US (CIPP/US)
- Certified Information Systems Security Professional (CISSP)
- CompTIA Network+
- CompTIA Security+
- EC-Council Certified Chief Information Security Officer (CCISO)
- EC-Council Certified Incident Handler (ECIH)
- EC-Council Certified Secure Computer User (CSCU)
- EC-Council Information Security Manager (EISM)

Degree Requirements

BS IN CYBERSECURITY MANAGEMENT AND POLICY

	Credits
General Education Courses	41
Required Major Courses	33
Minor and Elective Courses	46
Total	120

BACHELOR'S DEGREE PROGRAMS CURRICULA

REQUIRED MAJOR COURSES (33 CREDITS)

CSIA 300	Cybersecurity for Leaders and Managers (3)
IFSM 304	Ethics in Information Technology (3)
CMIT 265	Fundamentals of Networking (3)
CMIT 320	Network Security (3)
CSIA 310	Cybersecurity Processes and Technologies (3)
CSIA 350	Cybersecurity in Business and Industry (3)
CSIA 360	Cybersecurity in Government Organizations (3)
CSIA 413	Cybersecurity Policy, Plans, and Programs (3)
CSIA 459	Evaluating Emerging Technologies (3)
CMIT 425	Advanced Information Systems Security (3)
CSIA 485	Practical Applications in Cybersecurity Management and Policy (3)

Course Sequencing

The following table is designed to provide an optimal order for taking both required and recommended general education, major, and elective courses for this program. Your plan will be unique to you, based on your previous education. See pp. 40–42 for information on general education and overall requirements for completing a bachelor's degree. Contact an advisor if you have any questions about your academic advisement report.

Major and related requirements are listed in **bold**.

BS IN CYBERSECURITY MANAGEMENT AND POLICY	
Recommended and Required Courses	Requirement(s) Fulfilled
LIBS 150 Introduction to Research (1)	General education/computing and research
PACE 111T Program and Career Exploration in Technology (3)	General education/computing and research
WRWG 111 Academic Writing I (3)	General education/communications
IFSM 201 Concepts and Applications of Information Technology (3)	Prerequisite and general education/computing and research
NUTR 100 Elements of Nutrition (3)	General education/biological and physical sciences
CSIA 300 Cybersecurity for Leaders and Managers (3)	Major
SPCH 100 Foundations of Oral Communication (3)	General education/communications
MATH 107 College Algebra (3)	General education/mathematics
WRWG 112 Academic Writing II (3)	General education/communications
IFSM 304 Ethics in Information Technology (3)	Major
HIST 125 Technological Transformations (3)	General education/arts and humanities

BIOL 103 Introduction to Biology (4)	General education/biological and physical sciences
BEHS 103 Technology in Contemporary Society (3)	General education/behavioral and social sciences
ARTH 334 Understanding Movies (3)	General education/arts and humanities
Elective (3)	Elective
ECON 103 Economics in the Information Age (3)	General education/behavioral and social sciences
CMIT 265 Fundamentals of Networking (3)	Major
Elective (3)	Elective
CMIT 320 Network Security (3)	Major
Elective (3)	Elective
CSIA 310 Cybersecurity Processes and Technologies (3)	Major
Elective (3)	Elective
CSIA 350 Cybersecurity in Business and Industry (3)	Major
WRWG 393 Advanced Technical Writing (3)	General education/communications
Elective (3)	Elective
CSIA 360 Cybersecurity in Government Organizations (3)	Major
Elective (3)	Elective
Elective (3)	Elective
CSIA 413 Cybersecurity Policy, Plans, and Programs (3)	Major
Elective (3)	Elective
Elective (3)	Elective
CSIA 459 Evaluating Emerging Technologies (3)	Major
Elective (3)	Elective
Elective (3)	Elective
CMIT 425 Advanced Information Systems Security (3)	Major
Elective (3)	Elective
CSIA 485 Practical Applications in Cybersecurity Management and Policy (3)	Major/capstone
Elective (1)	Elective

BACHELOR'S DEGREE PROGRAMS CURRICULA

Honor Society

Information on eligibility for membership in the UMGC chapter of Upsilon Pi Epsilon, the international honor society for the computing and information disciplines, is available on p. 292.

Digital Media and Web Technology

You may seek either an academic major or minor in digital media and web technology.

Major in Digital Media and Web Technology

You can follow your interests and prepare for a career in digital design with UMGC's bachelor's degree program in digital media and web technology, which allows you to explore web or digital design. In this major, you'll learn how to create digital works using industry-standard software and incorporating design theory and efficient workflows. Through your coursework, you can gain hands-on experience in web design, electronic publishing, motion graphics, multimedia, animation, and graphic design.

What You'll Learn

Through your coursework, you will learn how to

- Design, develop, and manage digital media using current and emerging technologies that adhere to industry standards
- Analyze needs and effectively manage projects and resources, applying sound business principles and technology
- Design and develop digital, interactive, and web-based media to meet customer requirements and usability standards
- Develop, test, and implement web and multimedia applications using techniques for scripting and programming
- Apply relevant theories, practices, and principles effectively when designing and developing works in digital media

Degree Requirements

BS IN DIGITAL MEDIA AND WEB TECHNOLOGY

	Credits
General Education Courses	41
Required Major Courses	30
Minor and Elective Courses	49
Total	120

REQUIRED MAJOR COURSES (30 CREDITS)

CMST 290	Introduction to Interactive Design (3)
CMST 295	Fundamentals of Digital Media (3)
CMST 495	Current Trends and Projects in Digital Media and Web Technology (3)

Any upper-level CMST courses (21)—Focused study in web or digital design recommended, as follows:

Web Design

CMST 385	Principles of Web Design and Technology I
CMST 386	Principles of Web Design and Technology II
CMST 325	Image Editing
CMST 320	Illustration Graphics
CMST 388	Fundamentals of JavaScript
CMST 450	Web Development Using XML
CMST 488	Advanced JavaScript

Digital Design

CMST 310	Fundamentals of Electronic Publishing
CMST 311	Advanced Electronic Publishing
CMST 325	Image Editing
CMST 320	Illustration Graphics
CMST 425	Advanced Image Editing
CMST 341	Principles of Multimedia I
CMST 351	Motion Graphics I

BACHELOR'S DEGREE PROGRAMS CURRICULA

Course Sequencing

The following table is designed to provide an optimal order for taking both required and recommended general education, major, and elective courses for this program. Your plan will be unique to you, based on your previous education. See pp. 40–42 for information on general education and overall requirements for completing a bachelor's degree. Contact an advisor if you have any questions about your academic advisement report.

Major and related requirements are listed in **bold**.

BS IN DIGITAL MEDIA AND WEB TECHNOLOGY	
Recommended and Required Courses	Requirement(s) Fulfilled
LIBS 150 Introduction to Research (1)	General education/computing and research
PACE 111T Program and Career Exploration in Technology (3)	General education/computing and research
WRWG 111 Academic Writing I (3)	General education/communications
CMST 301 Digital Media and Society (3)	General education/computing and research
NUTR 100 Elements of Nutrition (3)	General education/biological and physical sciences
CMST 290 Introduction to Interactive Design (3)	Major
SPCH 100 Foundations of Oral Communication (3)	General education/communications
MATH 107 College Algebra (3)	General education/mathematics
WRWG 112 Academic Writing II (3)	General education/communications
CMST 295 Fundamentals of Digital Media (3)	Major
HIST 125 Technological Transformations (3)	General education/arts and humanities
BIOL 103 Introduction to Biology (4)	General education/biological and physical sciences
BEHS 103 Technology in Contemporary Society (3)	General education/behavioral and social sciences
ARTH 334 Understanding Movies (3)	General education/arts and humanities
Elective (3)	Elective
ECON 103 Economics in the Information Age (3)	General education/behavioral and social sciences
CMST 385 Principles of Web Design and Technology I or CMST 310 Fundamentals of Electronic Publishing (3)	Major

Elective (3)	Elective
CMST 386 Principles of Web Design and Technology II or CMST 311 Advanced Electronic Publishing (3)	Major
Elective (3)	Elective
CMST 325 Image Editing (3)	Major
Elective (3)	Elective
CMST 320 Illustration Graphics (3)	Major
WRWG 393 Advanced Technical Writing (3)	General education/communications
Elective (3)	Elective
CMST 388 Fundamentals of JavaScript or CMST 425 Advanced Image Editing (3)	Major
Elective (3)	Elective
Elective (3)	Elective
CMST 450 Web Development Using XML or CMST 341 Principles of Multimedia I (3)	Major
Elective (3)	Elective
Elective (3)	Elective
CMST 488 Advanced JavaScript or CMST 351 Motion Graphics I (3)	Major
Elective (3)	Elective
Elective (3)	Elective
CMST 495 Current Trends and Projects in Digital Media and Web Technology (3)	Major/capstone
Elective (3)	Elective
Elective (1)	Elective

Honor Society

Information on eligibility for membership in the UMGC chapter of Upsilon Pi Epsilon, the international honor society for the computing and information disciplines, is available on p. 292.

BACHELOR'S DEGREE PROGRAMS CURRICULA

Minor in Digital Media and Web Technology

The digital media and web technology minor complements the skills you gain in your major discipline by providing a study of the principles, best practices, and technologies that govern the design of digital media.

Courses in the Minor (15 Credits)

A minor in digital media and web technology requires the completion of 15 credits of coursework in computer studies. You must complete either CMST 290 or CMST 295. The remaining credits may be chosen from any CMST courses.

Courses already applied toward other degree requirements (e.g., major or general education) may not be applied toward the minor. At least 9 credits must be earned in upper-level courses (numbered 300 or above). Prerequisites apply for all courses.

For a listing of all the requirements for the bachelor's degree, refer to your major and pp. 40–42.

Diversity Awareness

You may seek an academic minor in diversity awareness.

Minor in Diversity Awareness

The diversity awareness minor complements the skills you gain in your major discipline by providing an interdisciplinary perspective on diversity in contemporary society, conceptually grounded in social science, to promote and cultivate the intercultural awareness and effective communication skills that are necessary in today's professional and social settings.

Courses in the Minor (15 Credits)

A minor in diversity awareness requires the completion of 15 credits of coursework, chosen from the following courses:

ANTH 346	Anthropology of Language and Communication
BEHS 220	Diversity Awareness
BEHS 320	Disability Studies
GERO 311	Gender and Aging
GERO 427	Culture and Aging
PSYC 338	Psychology of Gender
PSYC 354	Cross-Cultural Psychology
SOCY 325	The Sociology of Gender
SOCY 423	Race and Ethnicity: A Global Perspective

SOCY 426	Sociology of Religion
SPCH 324	Communication and Gender
SPCH 482	Intercultural Communication
WMST 200	Introduction to Women's Studies: Women and Society

It is recommended that you take BEHS 220 as the first course in the minor (if you have not already applied the course toward other degree requirements).

Courses already applied toward other degree requirements (e.g., major or general education) may not be applied toward the minor. At least 9 credits must be earned in upper-level courses (numbered 300 or above). Prerequisites apply for all courses.

For a listing of all the requirements for the bachelor's degree, refer to your major and pp. 40–42.

East Asian Studies

You may seek either an academic major or minor in East Asian studies.

Major in East Asian Studies

UMGC's East Asian studies major provides an overview of the history, economics, politics, culture, and languages of the East Asian region, including China, Korea, and Japan. In this program, you'll examine East Asia's rich past and continuing contributions to the global community.

This program is ideal for those who live or work in East Asia, know East Asian languages, or regularly interact with people from East Asian countries.

What You'll Learn

Through your coursework, you will learn how to

- Interpret, communicate, educate, and advise others based on your understanding, research, and analysis of the social, historical, and cultural contexts of East Asia
- Use your knowledge of East Asia to identify, create, facilitate, and promote opportunities for interaction and cooperation between East Asia and the global community
- Apply your knowledge of East Asian diversity, values, and expectations to perform in a culturally appropriate way in personal and professional settings
- Write and speak an East Asian language, integrating interpersonal skills and cultural knowledge

BACHELOR'S DEGREE PROGRAMS CURRICULA

Degree Requirements

BA IN EAST ASIAN STUDIES	
	Credits
General Education Courses	41
Required Major Courses	30
Minor and Elective Courses	49
Total	120

REQUIRED MAJOR COURSES (30 CREDITS)

- ASTD 284 Foundations of East Asian Civilization (3)
- ASTD 285 Introduction to Modern East Asia (3)
- PHIL 348 Religions of the East (3)
- ASTD 485 Issues in East Asian Studies (3)
- East Asian language courses (9)—Chosen from CHIN or JAPN courses numbered 111, 112, 114, or higher
- Upper-level East Asian content courses (9)—Chosen from ASTD, CHIN, JAPN, KORN, Asian HIST, and Asian GVPT courses and ANTH 417; focused study on China or Japan recommended, as follows:

China

- HIST 480 History of China to 1912
- ASTD 370 Interpreting Contemporary China
- ANTH 417 Peoples and Cultures of East Asia

Japan

- HIST 482 History of Japan to 1800
- JAPN 333 Japanese Society and Culture
- ANTH 417 Peoples and Cultures of East Asia

Course Sequencing

The following table is designed to provide an optimal order for taking both required and recommended general education, major, and elective courses for this program. Your plan will be unique to you, based on your previous education. See pp. 40–42 for information on general education and overall requirements for completing a bachelor's degree. Contact an advisor if you have any questions about your academic advisement report.

Major and related requirements are listed in **bold**.

BA IN EAST ASIAN STUDIES	
Recommended and Required Courses	Requirement(s) Fulfilled
LIBS 150 Introduction to Research (1)	General education/computing and research
PACE 111C Program and Career Exploration in Communication/Humanities (3)	General education/computing and research
WRTG 111 Academic Writing I (3)	General education/communications
IFSM 201 Concepts and Applications of Information Technology (3)	General education/computing and research
NUTR 100 Elements of Nutrition (3)	General education/biological and physical sciences
ASTD 284 Foundations of East Asian Civilization (3)	Major
SPCH 100 Foundations of Oral Communication (3)	General education/communications
MATH 105 Topics for Mathematical Literacy (3)	General education/mathematics
WRTG 112 Academic Writing II (3)	General education/communications
ASTD 285 Introduction to Modern East Asia (3)	Major
HUMN 100 Introduction to Humanities (3)	General education/arts and humanities
BIOL 103 Introduction to Biology (4)	General education/biological and physical sciences
BEHS 103 Technology in Contemporary Society (3)	General education/behavioral and social sciences
ARTH 334 Understanding Movies (3)	General education/arts and humanities
Elective (3)	Elective
ECON 103 Economics in the Information Age (3)	General education/behavioral and social sciences
PHIL 348 Religions of the East (3)	Major
Elective (3)	Elective
Elective (3)	Elective
Elective (3)	Elective
CHIN 111 Elementary Chinese I or JAPN 111 Elementary Japanese I (3)	Major
Elective (3)	Elective
CHIN 112 Elementary Chinese II or JAPN 112 Elementary Japanese II (3)	Major
WRTG 391 Advanced Research Writing (3)	General education/communications

BACHELOR'S DEGREE PROGRAMS CURRICULA

Elective (3)	Elective
CHIN 114 Elementary Chinese III or JAPN 114 Elementary Japanese III (3)	Major
Elective (3)	Elective
Elective (3)	Elective
HIST 480 History of China to 1912 or HIST 482 History of Japan to 1800 (3)	Major
Elective (3)	Elective
Elective (3)	Elective
ASTD 370 Interpreting Contemporary China or JAPN 333 Japanese Society and Culture (3)	Major
Elective (3)	Elective
Elective (3)	Elective
ANTH 417 Peoples and Cultures of East Asia (3)	Major
Elective (3)	Elective
ASTD 485 Senior Seminar in Communication Studies (3)	Major/capstone
Elective (1)	Elective

Minor in East Asian Studies

The East Asian studies minor complements the skills you gain in your major discipline by providing an interdisciplinary study of the cultural, historical, political, and contemporary business reality of the Asian/Pacific world.

Courses in the Minor (15 Credits)

A minor in East Asian studies requires the completion of 15 credits of coursework in East Asian studies, which must include ASTD 284 and ASTD 285. Courses allowable for the major in East Asian studies apply.

Courses already applied toward other degree requirements (e.g., major or general education) may not be applied toward the minor. At least 9 credits must be earned in upper-level courses (numbered 300 or above). Prerequisites apply for all courses.

For a listing of all the requirements for the bachelor's degree, refer to your major and pp. 40–42.

Economics

You may seek an academic minor in economics.

Minor in Economics

The economics minor complements the skills you gain in your major discipline by providing a study of the forces that determine production and distribution, price levels, and income distribution, as well as other economic factors that influence the quality of life.

Courses in the Minor (15 Credits)

A minor in economics requires the completion of the following courses:

- ECON 201 Principles of Macroeconomics (3)
- ECON 203 Principles of Microeconomics (3)
- ECON 305 Intermediate Macroeconomic Theory and Policy (3)
- ECON 306 Intermediate Microeconomic Theory (3)
- ECON 430 Money and Banking (3)

Courses already applied toward other degree requirements (e.g., major or general education) may not be applied toward the minor. At least 9 credits must be earned in upper-level courses (numbered 300 or above). Prerequisites apply for all courses.

For a listing of all the requirements for the bachelor's degree, refer to your major and pp. 40–42.

Emergency Management

You may seek an academic minor in emergency management.

Minor in Emergency Management

The emergency management minor complements the skills you gain in your major discipline by providing knowledge of emergency management, including disaster planning and operations and allocation of limited resources.

Vertical Pathway

If you complete your undergraduate degree at UMGC with a minor in emergency management, a vertical pathway between UMGC's undergraduate and graduate programs in that field allows you to reduce your total coursework for the Master of Science in Management with a specialization in emergency management at UMGC by 6 credits (two courses). Details are on p. 20.

BACHELOR'S DEGREE PROGRAMS CURRICULA

Courses in the Minor (15 Credits)

A minor in emergency management requires the completion of the following courses:

- EMGT 302 Concepts of Emergency Management (3)
- EMGT 304 Emergency Response Preparedness and Planning (3)
- EMGT 312 Social Dimensions of Disaster (3)
- EMGT 308 Exercise and Evaluation Programs (3)
- EMGT 314 Terrorism Issues in Emergency Management (3)

Courses already applied toward other degree requirements (e.g., major or general education) may not be applied toward the minor. At least 9 credits must be earned in upper-level courses (numbered 300 or above). Prerequisites apply for all courses.

For a listing of all the requirements for the bachelor's degree, refer to your major and pp. 40–42.

English

You may seek either an academic major or minor in English.

Major in English

Like other liberal arts majors, a major in English at UMGC offers a solid base of critical thinking on which to build a career or further graduate study. In-demand skills in research and writing that have a wide application in the job market are also honed. If you are intrigued by literature, the English major may be right for you.

What You'll Learn

Through your coursework, you will learn how to

- Demonstrate knowledge of a range of English-language literary texts, genres, and terms
- Analyze literary texts to explain stylistic, historical, socio-cultural, and ethical significance
- Apply critical theory to literary texts to enhance interpretation and analysis
- Conduct effective research across a range of media
- Create writing that effectively argues, persuades, illuminates, and/or informs
- Create presentations in various media to demonstrate the results of academic inquiry

Vertical Pathway

If you complete your undergraduate degree at UMGC with a major in English, a vertical pathway between UMGC's undergraduate and graduate programs allows you to reduce your total coursework

for the Master of Arts in Teaching at UMGC by 12 credits (three courses), including the noncredit introductory course UCSP 615. Details are on p. 20.

Degree Requirements

BA IN ENGLISH

	Credits
General Education Courses	41
Required Major Courses	33
Minor and Elective Courses	46
Total	120

REQUIRED MAJOR COURSES (33 CREDITS)

- ENGL 240 Introduction to Fiction, Poetry, and Drama (3)
- ENGL 281 Standard English Grammar (3)
- ENGL 303 Critical Approaches to Literature (3)
- ENGL 386 History of the English Language (3)
or any upper-level ENGL course
- ENGL 310 Renaissance Literature (3)
- ENGL 311 The Long 18th-Century British Literature (3)
or any upper-level ENGL course
- ENGL 312 19th-Century British Literature (3)
or any upper-level ENGL course
- ENGL 430 American Literature: Discovery to 1914 (3)
- ENGL 433 Modern American Literature: 1914–1945 (3)
- ENGL 441 Postmodern American Literature: 1945 to 1999 (3)
or any upper-level ENGL course
- ENGL 495 Advanced Seminar in English Language, Literature, and Writing (3)

Course Sequencing

The following table is designed to provide an optimal order for taking both required and recommended general education, major, and elective courses for this program. Your plan will be unique to you, based on your previous education. See pp. 40–42 for information on general education and overall requirements for completing a bachelor's degree. Contact an advisor if you have any questions about your academic advisement report.

BACHELOR'S DEGREE PROGRAMS CURRICULA

Major and related requirements are listed in **bold**.

BA IN ENGLISH	
Recommended and Required Courses	Requirement(s) Fulfilled
LIBS 150 Introduction to Research (1)	General education/computing and research
PACE 111C Program and Career Exploration in Communication/Humanities (3)	General education/computing and research
WRTG 112 Academic Writing II (3)	General education/communications
CMST 301 Digital Media and Society (3)	General education/computing and research
NUTR 100 Elements of Nutrition (3)	General education/biological and physical sciences
ENGL 102 Composition and Literature (3)	General education/communications
SPCH 100 Foundations of Oral Communication (3)	General education/communications
MATH 105 Topics for Mathematical Literacy (3)	General education/mathematics
ENGL 240 Introduction to Fiction, Poetry, and Drama (3)	Major
ENGL 281 Standard English Grammar (3)	Major
HUMN 100 Introduction to Humanities (3)	General education/arts and humanities
BIOL 103 Introduction to Biology (4)	General education/biological and physical sciences
BEHS 103 Technology in Contemporary Society (3)	General education/behavioral and social sciences
ARTH 334 Understanding Movies (3)	General education/arts and humanities
Elective (3)	Elective
ECON 103 Economics in the Information Age (3)	General education/behavioral and social sciences
ENGL 303 Critical Approaches to Literature (3)	Major
Elective (3)	Elective
ENGL 386 History of the English Language (3)	Major
Elective (3)	Elective
ENGL 310 Renaissance Literature (3)	Major
Elective (3)	Elective
ENGL 311 The Long 18th-Century British Literature (3)	Major
WRTG 391 Advanced Research Writing (3)	General education/communications
Elective (3)	Elective

ENGL 312 19th-Century British Literature (3)	Major
Elective (3)	Elective
Elective (3)	Elective
ENGL 430 American Literature: Discovery to 1914 (3)	Major
Elective (3)	Elective
Elective (3)	Elective
ENGL 433 Modern American Literature: 1914–1945 (3)	Major
Elective (3)	Elective
Elective (3)	Elective
ENGL 441 Postmodern American Literature: 1945 to 1999 (3)	Major
Elective (3)	Elective
ENGL 495 Advanced Seminar in English Language, Literature, and Writing (3)	Major/capstone
Elective (1)	Elective

Minor in English

The English minor complements the skills you gain in your major discipline by providing exposure to literary analysis, critical thinking and reading, and the study of the relationship of literature to contemporary intellectual issues.

Courses in the Minor (15 Credits)

A minor in English requires the completion of the following courses:

- ENGL 240 Introduction to Fiction, Poetry, and Drama (3)
- ENGL 281 Standard English Grammar (3)
- ENGL 303 Critical Approaches to Literature (3)
- ENGL 310 Renaissance Literature (3)
- ENGL 433 Modern American Literature: 1914–1945 (3)

Courses already applied toward other degree requirements (e.g., major or general education) may not be applied toward the minor. At least 9 credits must be earned in upper-level courses (numbered 300 or above). Prerequisites apply for all courses.

For a listing of all the requirements for the bachelor's degree, refer to your major and pp. 40–42.

BACHELOR'S DEGREE PROGRAMS

CURRICULA

Environmental Management

You may seek either an academic major or minor in environmental management.

Major in Environmental Management

Environmental issues like global warming, air quality, and water scarcity are central to the safety, health, and security of our nation and its citizens. In UMGC's hands-on environmental management program, you'll learn to plan, implement, and control all facets of environmental management, using professional models and techniques.

What You'll Learn

Through your coursework, you will learn how to

- Use the risk assessment process (identify, analyze, eliminate, and control hazards and risk factors) to evaluate potential risks to human health, safety, and the environment in a variety of settings
- Develop environmental management plans that comply with safety, health, and environmental regulations and policies; incorporate scientific principles; and manage risk to human health and the environment
- Evaluate and use information and data obtained through field inspections, monitoring, and public and private data sources to assess risks to human health and the environment
- Apply scientific knowledge and principles, quantitative methods, and technology to think critically and solve complex environmental management problems
- Communicate orally and in writing on environmental issues, principles, and practices in a clear, well-organized manner that effectively informs or persuades interested parties
- Identify and evaluate current and future air, water, land, and energy resource needs to make recommendations for sustainable solutions and practices

Degree Requirements

BS IN ENVIRONMENTAL MANAGEMENT

	Credits
General Education Courses	41
Required Major Courses	33
Minor and Elective Courses	46
Total	120

REQUIRED MAJOR COURSES (33 CREDITS)

ENMT 301	Environment and Ecosystems Principles (3)
BIOL 301	Human Health and Disease (3)
ENMT 303	Environmental Regulations and Policy (3)
ENMT 307	Introduction to Geographic Information Systems (GIS) (3)
ENMT 321	Environmental Health (3)
ENMT 322	Occupational Health and Safety (3)
ENMT 340	Environmental Technology (3)
ENMT 495	Global Environmental Management Issues (3)

Upper-level ENMT courses (9)—Focused study in toxicology and hazard control or sustainability recommended, as follows:

Toxicology and Hazard Control

ENMT 310	Hazard Management in Emergency Response Operations
ENMT 380	Air Quality Management
ENMT 390	Risk Assessment and Principles of Toxicology

Sustainability

ENMT 360	Introduction to Urban Watersheds
ENMT 365	Stewardship and Global Environmental Challenges
ENMT 405	Pollution Prevention Strategies

RELATED REQUIRED COURSES

Note: The following required courses may be applied to general education or elective requirements.

CHEM 297	Environmental Chemistry
MATH 115	Pre-Calculus
STAT 200	Introduction to Statistics

BACHELOR'S DEGREE PROGRAMS CURRICULA

Course Sequencing

The following table is designed to provide an optimal order for taking both required and recommended general education, major, and elective courses for this program. Your plan will be unique to you, based on your previous education. See pp. 40–42 for information on general education and overall requirements for completing a bachelor's degree. Contact an advisor if you have any questions about your academic advisement report.

Major and related requirements are listed in **bold**.

BS IN ENVIRONMENTAL MANAGEMENT	
Recommended and Required Courses	Requirement(s) Fulfilled
LIBS 150 Introduction to Research (1)	General education/computing and research
PACE 111S Program and Career Exploration in Health and Sciences (3)	General education/computing and research
WRWG 111 Academic Writing I (3)	General education/communications
SPCH 100 Foundations of Oral Communication (3)	General education/communications
CHEM 297 Environmental Chemistry (3)	Related and general education/biological and physical sciences
ENMT 301 Environment and Ecosystems Principles (3)	Major
WRWG 112 Academic Writing II (3)	General education/communications
MATH 115 Pre-Calculus (3)	Related and general education/mathematics
IFSM 300 Information Systems in Organizations (3)	General education/computing and research
BIOL 301 Human Health and Disease (3)	Major
HUMN 100 Introduction to Humanities (3)	General education/arts and humanities
BIOL 103 Introduction to Biology (4)	General education/biological and physical sciences
BEHS 103 Technology in Contemporary Society (3)	General education/behavioral and social sciences
ARTH 334 Understanding Movies (3)	General education/arts and humanities
STAT 200 Introduction to Statistics (3)	Related and general education/mathematics
ECON 103 Economics in the Information Age (3)	General education/behavioral and social sciences
ENMT 303 Environmental Regulations and Policy (3)	Major
Elective (3)	Elective
ENMT 307 Introduction to Geographic Information Systems (GIS) (3)	Major
Elective (3)	Elective

ENMT 321 Environmental Health (3)	Major
Elective (3)	Elective
ENMT 322 Occupational Health and Safety (3)	Major
WRWG 393 Advanced Technical Writing (3)	General education/communications
Elective (3)	Elective
ENMT 340 Environmental Technology (3)	Major
Elective (3)	Elective
Elective (3)	Elective
ENMT 360 Introduction to Urban Watersheds <i>or</i> ENMT 310 Hazard Management in Emergency Response Operations (3)	Major
Elective (3)	Elective
Elective (3)	Elective
ENMT 365 Stewardship and Global Environmental Challenges <i>or</i> ENMT 380 Air Quality Management (3)	Major
Elective (3)	Elective
Elective (3)	Elective
ENMT 405 Pollution Prevention Strategies <i>or</i> ENMT 390 Risk Assessment and Principles of Toxicology (3)	Major
Elective (3)	Elective
ENMT 495 Global Environment Management Sciences (3)	Major/capstone
Elective (1)	Elective

Minor in Environmental Management

The environmental management minor complements the skills you gain in your major discipline by providing an interdisciplinary study of multimedia (air, water, land) environmental management and related issues on a fundamental practical and global level.

Courses in the Minor (15 Credits)

A minor in environmental management requires the completion of 15 credits of coursework in environmental management. All courses allowable for the major apply. It is recommended that you take ENMT 301 as the first course in the minor (if you have not already applied the course toward other degree requirements).

BACHELOR'S DEGREE PROGRAMS

CURRICULA

Courses already applied toward other degree requirements (e.g., major or general education) may not be applied toward the minor. At least 9 credits must be earned in upper-level courses (numbered 300 or above). Prerequisites apply for all courses.

For a listing of all the requirements for the bachelor's degree, refer to your major and pp. 40–42.

Finance

You may seek either an academic major or minor in finance.

Major in Finance

In UMGC's bachelor's degree program in finance, you'll develop the expertise to apply finance theory to real-world situations. Our program combines a foundation in the principles of business, economics, and accounting with an in-depth focus on the details of finance and financial management via intensive case studies. It can also serve as an important first step toward earning important certifications in the field.

What You'll Learn

Through your coursework, you will learn how to

- Prepare, analyze, and interpret financial information
- Apply financial and economic theories to make sound business decisions
- Apply the basic principles of security markets to create, evaluate, and manage security portfolios
- Describe and analyze the impact of monetary systems' legal, regulatory, and environmental factors on planning, forecasting, and making financial decisions
- Communicate, collaborate, lead, and influence across the organization to achieve organizational goals effectively and ethically
- Research, collect, synthesize, and interpret data by applying appropriate technology tools to solve business problems
- Use market principles and entrepreneurial skills to identify, develop, and implement business opportunities and relationships for financial products and services

INDUSTRY CERTIFICATION

This program is designed to help prepare you for the following certification exams, listed in alphabetical order:

- Certified Financial Planner (CFP)
- Certified Management Accountant (CMA)

Degree Requirements

BS IN FINANCE

	Credits
General Education Courses	41
Required Major Courses	36
Minor and Elective Courses	43
Total	120

REQUIRED MAJOR COURSES (36 CREDITS)

BMGT 364	Management and Organization Theory (3)
ACCT 220	Principles of Accounting I (3)
ACCT 221	Principles of Accounting II (3)
FINC 330	Business Finance (3)
FINC 340	Investments (3)
FINC 351	Risk Management (3)
FINC 421	Financial Analysis (3)
FINC 430	Financial Management (3)
FINC 440	Security Analysis and Valuation (3)
FINC 460	International Finance (3)
ECON 430	Money and Banking (3)
FINC 495	Contemporary Issues in Finance Practice (3)

RELATED REQUIRED COURSES

Note: The following required courses may be applied to general education or elective requirements.

ECON 201	Principles of Macroeconomics
ECON 203	Principles of Microeconomics
STAT 200	Introduction to Statistics

Course Sequencing

The following table is designed to provide an optimal order for taking both required and recommended general education, major, and elective courses for this program. Your plan will be unique to you, based on your previous education. See pp. 40–42 for information on general education and overall requirements for completing a bachelor's degree. Contact an advisor if you have any questions about your academic advisement report.

BACHELOR'S DEGREE PROGRAMS CURRICULA

Major and related requirements are listed in **bold**.

BS IN FINANCE	
Recommended and Required Courses	Requirement(s) Fulfilled
LIBS 150 Introduction to Research (1)	General education/computing and research
PACE 111B Program and Career Exploration in Business (3)	General education/computing and research
WRWG 111 Academic Writing I (3)	General education/communications
IFSM 201 Concepts and Applications of Information Technology (3)	General education/computing and research
NUTR 100 Elements of Nutrition (3)	General education/biological and physical sciences
BMGT 364 Management and Organization Theory (3)	Major
WRWG 112 Academic Writing II (3)	General education/communications
STAT 200 Introduction to Statistics (3)	Related and general education/mathematics
WRWG 293 Introduction to Professional Writing (3)	General education/communications
ACCT 220 Principles of Accounting I (3)	Major
HIST 125 Technological Transformations (3)	General education/arts and humanities
BIOL 103 Introduction to Biology (4)	General education/biological and physical sciences
ECON 201 Principles of Macroeconomics (3)	Related and general education/behavioral and social sciences
ARTH 334 Understanding Movies (3)	General education/arts and humanities
Elective (3)	Elective
ECON 203 Principles of Microeconomics (3)	Related and general education/behavioral and social sciences
ACCT 221 Principles of Accounting II (3)	Major
Elective (3)	Elective
FINC 330 Business Finance (3)	Major
Elective (3)	Elective
FINC 340 Investments (3)	Major
Elective (3)	Elective
FINC 351 Risk Management (3)	Major
WRWG 394 Advanced Business Writing (3)	General education/communications
Elective (3)	Elective

FINC 421 Financial Analysis (3)	Major
Elective (3)	Elective
Elective (3)	Elective
FINC 430 Human Resource Management (3)	Major
Elective (3)	Elective
Elective (3)	Elective
FINC 440 Security Analysis and Valuation (3)	Major
Elective (3)	Elective
Elective (3)	Elective
FINC 460 International Finance (3)	Major
Elective (3)	Elective
Elective (3)	Elective
ECON 430 Money and Banking (3)	Major
Elective (3)	Elective
FINC 495 Contemporary Issues in Finance Practice (3)	Major/capstone
Elective (1)	Elective

Minor in Finance

The finance minor complements the skills you gain in your major discipline by providing a study of the institutions, theory, and practice associated with the allocation of financial resources within the private sector.

Courses in the Minor (15 Credits)

A minor in finance requires the completion of 15 credits of coursework in finance. All FINC courses apply. It is recommended that you take FINC 330 and FINC 340 as the first courses in the minor (if you have not already applied the courses toward other degree requirements).

Courses already applied toward other degree requirements (e.g., major or general education) may not be applied toward the minor. At least 9 credits must be earned in upper-level courses (numbered 300 or above). Prerequisites apply for all courses.

For a listing of all the requirements for the bachelor's degree, refer to your major and pp. 40–42.

BACHELOR'S DEGREE PROGRAMS CURRICULA

Fire Service Administration

You may seek an academic minor in fire service administration.

Minor in Fire Service Administration

The fire service administration minor complements the skills you gain in your major discipline by providing knowledge of disaster planning and the administration of fire-protection services, including organization, planning, operating procedures, management, and allocation of limited resources.

Courses in the Minor (15 Credits)

A minor in fire service administration requires the completion of the following courses:

FSCN 302	Fire and Emergency Services Administration (3)
FSCN 304	Personnel Management for Fire and Emergency Services (3)
FSCN 305	Fire Prevention Organization and Management (3)
FSCN 413	Community Risk Reduction for the Fire and Emergency Services (3)
FSCN 416	Emergency Services Training and Education (3)

Courses already applied toward other degree requirements (e.g., major or general education) may not be applied toward the minor. At least 9 credits must be earned in upper-level courses (numbered 300 or above). Prerequisites apply for all courses.

For a listing of all the requirements for the bachelor's degree, refer to your major and pp. 40–42.

Forensics

You may seek an academic minor in forensics.

Minor in Forensics

The minor in forensics complements the skills you gain in your major discipline by providing interdisciplinary study in selected areas of criminal justice, natural science, social science, investigation and security, information and computer systems, psychology, and sociology. It combines laboratory and field skills in the collection and analysis of physical evidence with further study in the various subfields of forensics.

Courses in the Minor (15 Credits)

A minor in forensics requires the completion of 15 credits of coursework in forensics, chosen from the following:

CCJS 101	Introduction to Investigative Forensics
CCJS 234	Criminal Procedure and Evidence
CCJS 301	Criminalistics I: The Comparative Disciplines
CCJS 302	Criminalistics II: The Scientific Disciplines
CCJS 342	Crime Scene Investigation
CCJS 390	Cybercrime and Security
CCJS 420	Medical and Legal Investigations of Death
CCJS 421	Principles of Digital Analysis
CCJS 440	Fingerprint Analysis
CCJS 441	Firearms and Toolmarks Analysis

It is recommended that you take CCJS 101 and CCJS 234 as the first courses for the minor (if you have not already applied the courses toward other degree requirements).

Courses already applied toward other degree requirements (e.g., major or general education) may not be applied toward the minor. At least 9 credits must be earned in upper-level courses (numbered 300 or above). Prerequisites apply for all courses.

For a listing of all the requirements for the bachelor's degree, refer to your major and pp. 40–42.

General Studies

You may seek an academic major in general studies.

Major in General Studies

The bachelor's degree program in general studies allows you to take an active role in designing your educational experience through a flexible curriculum while maximizing your ability to transfer previously earned credit. This personalized learning path, coupled with a focus on your specific interests and areas of study, provides a solid, well-rounded foundation in preparation for a variety of careers.

What You'll Learn

Through your coursework, you will learn how to

- Improve oral and written communication skills
- Apply critical thinking and problem-solving skills
- Analyze insights about personal and professional goals

BACHELOR'S DEGREE PROGRAMS CURRICULA

- Apply skills and knowledge from different academic disciplines
- Synthesize concepts and theories in core content courses and focus areas

Degree Requirements

BS IN GENERAL STUDIES

	Credits
General Education Courses	41
Major Courses	30
Minor and Elective Courses	49
Total	120

REQUIREMENTS FOR THE MAJOR (30 CREDITS)

- 6 credits of coursework in one discipline area (e.g., HRMN)
- 6 credits from a second discipline area (e.g., PSYC)
- 15 credits from any discipline area(s)
- CAPL 495 General Studies Capstone (3)

Note: No more than 21 credits of coursework in a single discipline area may be applied to the major.

OVERALL REQUIREMENTS FOR THE DEGREE

Overall requirements for a bachelor's degree in general studies differ slightly from those listed on pp. 40–42. You must meet the 30-credit requirement for coursework taken at UMGC, but those credits may be earned in any combination across major, general education, and elective courses.

Gerontology and Aging Services

You may seek either an academic major or minor in gerontology and aging services.

Major in Gerontology and Aging Services

In the gerontology and aging services program at UMGC, you'll gain a foundation in the physiological, social, and psychological aspects of aging, coupled with an understanding of programs, services, and policies related to aging and older adults, so that you can care for and serve this population.

What You'll Learn

Through your coursework, you will learn how to

- Access, interpret, and apply research findings related to biological, psychological, and social processes in the context of aging
- Analyze the impact of factors such as race, ethnicity, gender, and social class on the aging process
- Analyze the development of policies related to aging and their impact on services and organizations for older adults, both locally and nationally
- Apply knowledge to work with older adults in a chosen area of practice
- Practice within the legal and ethical standards of the aging services field

Degree Requirements

BS IN GERONTOLOGY AND AGING SERVICES

	Credits
General Education Courses	41
Required Major Courses	33
Minor and Elective Courses	46
Total	120

REQUIRED MAJOR COURSES (33 CREDITS)

GERO 100	Contemporary Issues in Aging (3)
GERO 301	Service/Program Management (3)
GERO 302	Health and Aging (3)
GERO 306	Programs, Services, and Policies (3)
GERO 311	Gender and Aging (3)
GERO 320	Psychosocial Aspects of Aging (3)
GERO 338	Health Promotion in Older Adults (3)
GERO 342	Long-Term Care Administration (3)
GERO 390	The Business of Aging (3)
GERO 427	Culture and Aging (3)
GERO 486A	Workplace Learning in Gerontology and Aging Services (3)

BACHELOR'S DEGREE PROGRAMS CURRICULA

RELATED REQUIRED COURSE

Note: The following required course may be applied to general education or elective requirements.

STAT 200 Introduction to Statistics

Course Sequencing

The following table is designed to provide an optimal order for taking both required and recommended general education, major, and elective courses for this program. Your plan will be unique to you, based on your previous education. See pp. 40–42 for information on general education and overall requirements for completing a bachelor's degree. Contact an advisor if you have any questions about your academic advisement report.

Major and related requirements are listed in **bold**.

BS IN GERONTOLOGY AND AGING SERVICES	
Recommended and Required Courses	Requirement(s) Fulfilled
LIBS 150 Introduction to Research (1)	General education/computing and research
PACE 111S Program and Career Exploration in Health and Sciences (3)	General education/computing and research
WRWG 111 Academic Writing I (3)	General education/communications
IFSM 201 Concepts and Applications of Information Technology (3)	General education/computing and research
NUTR 100 Elements of Nutrition (3)	General education/biological and physical sciences
GERO 100 Contemporary Issues in Aging (3)	Major
SPCH 100 Foundations of Oral Communication (3)	General education/communications
STAT 200 Introduction to Statistics (3)	Related and general education/mathematics
WRWG 112 Academic Writing II (3)	General education/communications
GERO 301 Service/Program Management (3)	Major
HUMN 100 Introduction to Humanities (3)	General education/arts and humanities
BIOL 103 Introduction to Biology (4)	General education/biological and physical sciences
BEHS 103 Technology in Contemporary Society (3)	General education/behavioral and social sciences
ARTH 334 Understanding Movies (3)	General education/arts and humanities
Elective (3)	Elective

ECON 103 Economics in the Information Age (3)	General education/behavioral and social sciences
GERO 302 Health and Aging (3)	Major
Elective (3)	Elective
GERO 306 Programs, Services, and Policies (3)	Major
Elective (3)	Elective
GERO 311 Gender and Aging (3)	Major
Elective (3)	Elective
GERO 320 Psychosocial Aspects of Aging (3)	Major
WRWG 391 Advanced Research Writing (3)	General education/communications
Elective (3)	Elective
GERO 338 Health Promotion in Older Adults (3)	Major
Elective (3)	Elective
Elective (3)	Elective
GERO 342 Long-Term Care Administration (3)	Major
Elective (3)	Elective
Elective (3)	Elective
GERO 390 The Business of Aging (3)	Major
Elective (3)	Elective
Elective (3)	Elective
GERO 427 Culture and Aging (3)	Major
Elective (3)	Elective
GERO 486A Workplace Learning in Gerontology and Aging Services (3)	Major
Elective (1)	Elective

BACHELOR'S DEGREE PROGRAMS CURRICULA

Minor in Gerontology and Aging Services

The gerontology and aging services minor complements the skills you gain in your major discipline by examining aging from a multi-disciplinary perspective that integrates biological, sociological, psychological, and historical perspectives. It provides you with the opportunity to study complex processes and aspects of aging and the field of gerontology.

Courses in the Minor (15 Credits)

A minor in gerontology and aging services requires the completion of 15 credits of coursework in gerontology. BEHS 380 and all GERO courses apply. It is recommended that you take GERO 100 as the first course in the minor (if you have not already applied the course toward other degree requirements).

Courses already applied toward other degree requirements (e.g., major or general education) may not be applied toward the minor. At least 9 credits must be earned in upper-level courses (numbered 300 or above). Prerequisites apply for all courses.

For a listing of all the requirements for the bachelor's degree, refer to your major and pp. 40–42.

Graphic Communication

You may seek an academic major in graphic communication.

Major in Graphic Communication

UMGC's graphic communication major is a portfolio-intensive program that can help you master the skills and technology to compete in today's rapidly changing visual arts and communication environment. With a graphic design degree, along with an updated portfolio aimed toward your ideal clients, you can apply your creative streak toward a career in business, government, or industry as a graphic designer, manager, or communications specialist.

What You'll Learn

Through your coursework, you will learn how to

- Produce effective visual communications by applying principles of composition, layout, color theory, and context
- Plan, design, and create interactive solutions, such as user interfaces, motion graphics, mobile applications, and web designs
- Use professional, analytical, collaborative, and technical design skills to support team goals, roles, and responsibilities
- Define and direct creative strategy in a business environment by combining scope, messaging, and evaluation of success in an overarching design campaign

Degree Requirements

BS IN GRAPHIC COMMUNICATION

	Credits
General Education Courses	41
Major Courses	33
Minor and Elective Courses	46
Total	120

REQUIRED MAJOR COURSES (33 CREDITS)

GRCO 100	Introduction to Graphic Communication (3)
ARTT 110	Introduction to Drawing (3)
ARTT 120	Design I: Arrangement and Color (3)
ARTT 210	Intermediate Drawing (3)
GRCO 230	Typography and Layout (3)
GRCO 350	Intermediate Graphic Communication: Portfolio Development (3)
GRCO 354	Digital Media (3)
GRCO 355	Digital Media II (3)
GRCO 450	Advanced Graphic Communication: Professional Branding (3)
GRCO 479	Motion Graphics (3)
GRCO 495	Graphic Communication Portfolio (3)

Course Sequencing

The following table is designed to provide an optimal order for taking both required and recommended general education, major, and elective courses for this program. Your plan will be unique to you, based on your previous education. See pp. 40–42 for information on general education and overall requirements for completing a bachelor's degree. Contact an advisor if you have any questions about your academic advisement report.

BACHELOR'S DEGREE PROGRAMS CURRICULA

Major and related requirements are listed in **bold**.

BA IN GRAPHIC COMMUNICATION	
Recommended and Required Courses	Requirement(s) Fulfilled
LIBS 150 Introduction to Research (1)	General education/computing and research
PACE 111C Program and Career Exploration in Communication/Humanities (3)	General education/computing and research
WRWG 111 Academic Writing I (3)	General education/communications
CMST 301 Digital Media and Society (3)	General education/computing and research
NUTR 100 Elements of Nutrition (3)	General education/biological and physical sciences
GRCO 100 Introduction to Graphic Communication (3)	Major
SPCH 100 Foundations of Oral Communication (3)	General education/communications
MATH 105 Topics for Mathematical Literacy (3)	General education/mathematics
WRWG 112 Academic Writing II (3)	General education/communications
ARTT 110 Introduction to Drawing (3)	Major
HUMN 100 Introduction to Humanities (3)	General education/arts and humanities
BIOL 103 Introduction to Biology (4)	General education/biological and physical sciences
BEHS 103 Technology in Contemporary Society (3)	General education/behavioral and social sciences
ARTH 375 History of Graphic Art (3)	General education/arts and humanities
Elective (3)	Elective
ECON 103 Economics in the Information Age (3)	General education/behavioral and social sciences
ARTT 120 Design I: Arrangement and Color (3)	Major
Elective (3)	Elective
ARTT 210 Intermediate Drawing (3)	Major
Elective (3)	Elective
GRCO 230 Typography and Layout (3)	Major
Elective (3)	Elective
GRCO 350 Intermediate Graphic Communication: Portfolio Development (3)	Major
WRWG 391 Advanced Research Writing (3)	General education/communications
Elective (3)	Elective
GRCO 354 Digital Media (3)	Major

Elective (3)	Elective
Elective (3)	Elective
GRCO 355 Digital Media II (3)	Major
Elective (3)	Elective
Elective (3)	Elective
GRCO 450 Advanced Graphic Communication: Professional Branding (3)	Major
Elective (3)	Elective
Elective (3)	Elective
GRCO 479 Motion Graphics (3)	Major
Elective (3)	Elective
GRCO 495 Graphic Communication Portfolio (3)	Major/capstone
Elective (1)	Elective

Health Services Management

You may seek either an academic major or minor in health services management.

Major in Health Services Management

A major in health services management can provide you with grounding in the core knowledge and competencies for effective management in the dynamic healthcare environment, teaching you to think comprehensively and strategically about healthcare trends so you can lead innovation. It is perfect for entry-level and midcareer professionals.

Through your coursework, you will learn how to

- Exercise sound business and financial management principles in healthcare settings through process mapping and strategic planning
- Apply technological advances and emerging trends in the U.S. healthcare system to achieve organizational goals and practices
- Identify, analyze, and evaluate quantitative and qualitative healthcare data and information for effective decision making in various healthcare settings
- Evaluate legal and ethical issues associated with the planning and delivery of healthcare services
- Analyze policies related to healthcare management

BACHELOR'S DEGREE PROGRAMS CURRICULA

Degree Requirements

BS IN HEALTH SERVICES MANAGEMENT	
	Credits
General Education Courses	41
Required Major Courses	33
Minor and Elective Courses	46
Total	120

REQUIRED MAJOR COURSES (33 CREDITS)

HMGT 300	Introduction to the U.S. Healthcare Sector (3)
HMGT 307	Managerial Epidemiology and Decision Making in Healthcare (3)
HMGT 310	Healthcare Policies (3)
HMGT 320	Management in Healthcare Organizations (3)
HMGT 322	Healthcare Financial Management (3)
HMGT 335	Healthcare Marketing (3)
HMGT 372	Legal and Ethical Issues in Healthcare (3)
HMGT 400	Research and Data Analysis in Healthcare (3)
HMGT 420	Healthcare Facilities Management (3)
HMGT 435	Healthcare Economics (3)
HMGT 495	Strategic Planning and Leadership in Healthcare (3)

RELATED REQUIRED COURSES

Note: The following required courses may be applied to general education or elective requirements.

IFSM 305	Information Systems in Healthcare Organizations
STAT 200	Introduction to Statistics

Course Sequencing

The following table is designed to provide an optimal order for taking both required and recommended general education, major, and elective courses for this program. Your plan will be unique to you, based on your previous education. See pp. 40–42 for information on general education and overall requirements for completing a bachelor's degree. Contact an advisor if you have any questions about your academic advisement report.

Major and related requirements are listed in **bold**.

BS IN HEALTH SERVICES MANAGEMENT	
Recommended and Required Courses	Requirement(s) Fulfilled
LIBS 150 Introduction to Research (1)	General education/computing and research
PACE 111S Program and Career Exploration in Health and Sciences (3)	General education/computing and research
WRTG 111 Academic Writing I (3)	General education/communications
IFSM 305 Information Systems in Healthcare Organizations (3)	Related and general education/computing and research
WRTG 112 Academic Writing II (3)	General education/communications
HMGT 300 Introduction to the U.S. Healthcare System (3)	Major
SPCH 100 Foundations of Oral Communication (3)	General education/communications
STAT 200 Introduction to Statistics (3)	Related and general education/mathematics
NUTR 100 Elements of Nutrition (3)	General education/biological and physical sciences
HMGT 307 Managerial Epidemiology and Decision Making in Healthcare (3)	Major
HUMN 100 Introduction to Humanities (3)	General education/arts and humanities
BIOL 103 Introduction to Biology (4)	General education/biological and physical sciences
BEHS 103 Technology in Contemporary Society (3)	General education/behavioral and social sciences
ARTH 334 Understanding Movies (3)	General education/arts and humanities
ECON 103 Economics in the Information Age (3)	General education/behavioral and social sciences
HMGT 310 Healthcare Policies (3)	Major
Elective (3)	Elective
HMGT 320 Management in Healthcare Organizations (3)	Major
Elective (3)	Elective
HMGT 322 Healthcare Financial Management (3)	Major
Elective (3)	Elective
HMGT 335 Healthcare Marketing (3)	Major
WRTG 394 Advanced Business Writing (3)	General education/communications

Continued

BACHELOR'S DEGREE PROGRAMS CURRICULA

Health Services Management, continued

Elective (3)	Elective
HMG 372 Legal and Ethical Issues in Healthcare (3)	Major
Elective (3)	Elective
Elective (3)	Elective
HMG 400 Research and Data Analysis in Healthcare (3)	Major
Elective (3)	Elective
Elective (3)	Elective
HMG 420 Healthcare Facilities Management (3)	Major
Elective (3)	Elective
Elective (3)	Elective
HMG 435 Healthcare Economics (3)	Major
Elective (3)	Elective
HMG 495 Strategic Planning and Leadership in Healthcare (3)	Major/capstone
Elective (1)	Elective

Minor in Health Services Management

The minor in health services management complements the skills you gain in your major discipline by enhancing the knowledge, skills, and competencies required by the changing health services environment. The minor covers a wide range of topics designed to help you deal with the challenges of management and leadership in this dynamic field.

Courses in the Minor (15 Credits)

A minor in health services management requires the completion of 15 credits of coursework in health services management, chosen from any HMG courses and GERO 342. It is recommended that you take HMG 300 as the first course in the minor (if you have not already applied the course toward other degree requirements).

Courses already applied toward other degree requirements (e.g., major or general education) may not be applied toward the minor. At least 9 credits must be earned in upper-level courses (numbered 300 or above). Prerequisites apply for all courses.

For a listing of all the requirements for the bachelor's degree, refer to your major and pp. 40–42.

History

You may seek either an academic major or minor in history.

Major in History

Like other liberal arts majors, a major in history offers a solid base of critical thinking on which to build a career or further graduate study.

One of the very first schools to offer a degree program in history online, UMGC brings you nearly two decades of experience in teaching history in an online environment. Plus, if you're based in the Washington, D.C., area, you'll have myriad opportunities to find internships and part-time and full-time jobs in the field via public institutions and federal positions. Our alumni have gone on to work at such agencies as the National Archives and the National Park Service.

What You'll Learn

Through your coursework, you will learn how to

- Research, interpret, and present historical knowledge
- Write and speak clearly and appropriately about historical information for diverse audiences
- Engage in history as a moral and ethical practice, recognizing a wide range of backgrounds and perspectives
- Apply historical precedents to contemporary life and develop self-reflection
- Achieve a deep understanding of the different peoples, events, and cultures that have shaped human civilization

Vertical Pathway

If you complete your undergraduate degree at UMGC with a major in history, a vertical pathway between UMGC's undergraduate and graduate programs allows you to reduce your total coursework for the Master of Arts in Teaching at UMGC by 12 credits (three courses), including the noncredit introductory course UCSP 615. Details are on p. 20.

BACHELOR'S DEGREE PROGRAMS CURRICULA

Degree Requirements

BA IN HISTORY	
	Credits
General Education Courses	41
Major Courses	33
Minor and Elective Courses	46
Total	120

REQUIRED MAJOR COURSES (33 CREDITS)

HIST 115	World History I (3) <i>or HIST 141 Western Civilization I</i>
HIST 116	World History II (3) <i>or HIST 142 Western Civilization II</i>
HIST 156	History of the United States to 1865 (3)
HIST 157	History of the United States Since 1865 (3)
HIST 289	Historical Methods (3)
HIST 309	Historical Writing (3)
HIST 495	Senior Thesis in History (3)

Upper-level HIST courses (12)—Focused study in U.S. or world history recommended, as follows:

U.S. History

HIST 316L	The American West
HIST 365	Recent America: 1945 to the Present
HIST 377	U.S. Women's History: 1870 to 2000
HIST 461	African American History: 1865 to the Present

World History

HIST 326	The Roman Republic
HIST 337	Europe's Bloodiest Century
HIST 392	History of the Contemporary Middle East
HIST 480	History of China to 1912

Course Sequencing

The following table is designed to provide an optimal order for taking both required and recommended general education, major, and elective courses for this program. Your plan will be unique to you, based on your previous education. See pp. 40–42 for information on general education and overall requirements for completing a bachelor's degree. Contact an advisor if you have any questions about your academic advisement report.

Major and related requirements are listed in **bold**.

BA IN HISTORY	
Recommended and Required Courses	Requirement(s) Fulfilled
LIBS 150 Introduction to Research (1)	General education/computing and research
PACE 111C Program and Career Exploration in Communication/Humanities (3)	General education/computing and research
WRTG 111 Academic Writing I (3)	General education/communications
CMST 301 Digital Media and Society (3)	General education/computing and research
NUTR 100 Elements of Nutrition (3)	General education/biological and physical sciences
HIST 115 World History I (3)	Major
SPCH 100 Foundations of Oral Communication (3)	General education/communications
MATH 105 Topics for Mathematical Literacy (3)	General education/mathematics
WRTG 112 Academic Writing II (3)	General education/communications
HIST 116 World History II (3)	Major
HUMN 100 Introduction to Humanities (3)	General education/arts and humanities
BIOL 103 Introduction to Biology (4)	General education/biological and physical sciences
BEHS 103 Technology in Contemporary Society (3)	General education/behavioral and social sciences
HIST 125 Technological Transformations (3)	General education/arts and humanities
Elective (3)	Elective
ECON 103 Economics in the Information Age (3)	General education/behavioral and social sciences
HIST 156 History of the United States to 1865 (3)	Major
Elective (3)	Elective
HIST 157 History of the United States Since 1865 (3)	Major
Elective (3)	Elective
HIST 289 Historical Methods (3)	Major
Elective (3)	Elective
HIST 309 Historical Writing (3)	Major
WRTG 391 Advanced Research Writing (3)	General education/communications
Elective (3)	Elective
HIST 316L The American West <i>or</i> HIST 326 The Roman Republic (3)	Major

Continued

BACHELOR'S DEGREE PROGRAMS CURRICULA

History, continued

Elective (3)	Elective
Elective (3)	Elective
HIST 365 Recent America: 1945 to the Present <i>or</i> HIST 337 Europe's Bloodiest Century (3)	Major
Elective (3)	Elective
Elective (3)	Elective
HIST 377 U.S. Women's History: 1870 to 2000 <i>or</i> HIST 392 History of the Contemporary Middle East (3)	Major
Elective (3)	Elective
Elective (3)	Elective
HIST 461 African American History: 1865 to the Present <i>or</i> HIST 480 History of China to 1912 (3)	Major
Elective (3)	Elective
HIST 495 Senior Thesis in History (3)	Major/capstone
Elective (1)	Elective

Minor in History

The history minor complements the skills you gain in your major discipline by offering a historical perspective and by helping you develop critical thinking skills and an appreciation of the major contributions of various events and individuals to human civilization.

Courses in the Minor (15 Credits)

A minor in history requires the completion of 15 credits of coursework in history, as follows:

A 100-level HIST course (3)
(Courses counted toward this requirement include HIST 115, HIST 116, HIST 141, HIST 142, HIST 156, and HIST 157.)

HIST 289 Historical Methods (3)

Any upper-level HIST courses (9)

Courses already applied toward other degree requirements (e.g., major or general education) may not be applied toward the minor. At least 9 credits must be earned in upper-level courses (numbered 300 or above). Prerequisites apply for all courses.

For a listing of all the requirements for the bachelor's degree, refer to your major and pp. 40–42.

Homeland Security

You may seek either an academic major or minor in homeland security.

Major in Homeland Security

A major in homeland security can help you develop the knowledge, skills, and abilities needed for management and leadership in homeland security. The coursework has been developed by practitioner-scholars who work in a variety of homeland security roles and is designed to provide you with a global outlook, interpersonal skills, leadership abilities, and awareness of current issues in domestic and international security. You'll use actual homeland security information, taken straight from governmental sources, in your assignments.

What You'll Learn

Through your coursework, you will learn how to

- Lead, manage, and motivate others, developing their knowledge and skills, to establish and achieve strategic and operational homeland security goals and interface with internal and external audiences
- Manage technology and information for the protection and recovery of critical infrastructure/information in a hostile or emergency environment
- Navigate the financial, personnel, legal, and political information of public or private organizations to identify, evaluate, and address organizational needs, requirements, and resources
- Research, analyze, and synthesize complex intelligence information using various methods to formulate risk assessments and responses to emerging threats
- Communicate, negotiate, and educate strategically and tactically across cultural boundaries with diverse partners and stakeholders within homeland security
- Write concise and succinct policy, planning, and procedure documents for a variety of audiences to support homeland security operations

Vertical Pathway

If you complete your undergraduate degree at UMGC with a major in homeland security, a vertical pathway between UMGC's undergraduate and graduate programs in that field allows you to reduce your total coursework for the Master of Science in Management or in Information Technology with a specialization in homeland security at UMGC by 6 credits (two courses). Details are on p. 20.

BACHELOR'S DEGREE PROGRAMS CURRICULA

Degree Requirements

BS IN HOMELAND SECURITY	
	Credits
General Education Courses	41
Required Major Courses	33
Minor and Elective Courses	46
Total	120

REQUIRED MAJOR COURSES (33 CREDITS)

HMLS 302	Introduction to Homeland Security (3)
HMLS 310	Homeland Security Response to Critical Incidents (3)
HMLS 406	Legal and Political Issues in Homeland Security (3)
HMLS 408	Infrastructure in Homeland Security (3)
HMLS 414	Homeland Security and Intelligence (3)
HMLS 416	Homeland Security and International Relations (3)
PSAD 410	Public Safety Research and Technology (3)
PSAD 414	Public Safety Administration Ethics (3)
PSAD 416	Public Safety Leadership (3)
HMLS 304	Strategic Planning in Homeland Security (3)
HMLS 495	Homeland Security Issues and Challenges (3)

RELATED REQUIRED COURSE

Note: The following required course may be applied to general education or elective requirements.

IFSM 300	Information Systems in Organizations
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Course Sequencing

The following table is designed to provide an optimal order for taking both required and recommended general education, major, and elective courses for this program. Your plan will be unique to you, based on your previous education. See pp. 40–42 for information on general education and overall requirements for completing a bachelor's degree. Contact an advisor if you have any questions about your academic advisement report.

Major and related requirements are listed in **bold**.

BS IN HOMELAND SECURITY

Recommended and Required Courses	Requirement(s) Fulfilled
LIBS 150 Introduction to Research (1)	General education/computing and research
PACE 111P Program and Career Exploration in Public Safety (3)	General education/computing and research
WRG 111 Academic Writing I (3)	General education/communications
WRG 112 Academic Writing II (3)	General education/communications
NUTR 100 Elements of Nutrition (3)	General education/biological and physical sciences
HMLS 302 Introduction to Homeland Security (3)	Major
SPCH 100 Foundations of Oral Communication (3)	General education/communications
MATH 105 Topics for Mathematical Literacy (3)	General education/mathematics
IFSM 300 Information Systems in Organizations (3)	Related and general education/computing and research
HMLS 406 Legal and Political Issues in Homeland Security (3)	Major
HUMN 100 Introduction to Humanities (3)	General education/arts and humanities
BIOL 103 Introduction to Biology (4)	General education/biological and physical sciences
BEHS 103 Technology in Contemporary Society (3)	General education/behavioral and social sciences
ARTH 334 Understanding Movies (3)	General education/arts and humanities
Elective (3)	Elective
ECON 103 Economics in the Information Age (3)	General education/behavioral and social sciences
HMLS 310 Homeland Security Response to Critical Incidents (3)	Major
Elective (3)	Elective
HMLS 408 Infrastructure in Homeland Security (3)	Major
Elective (3)	Elective
HMLS 414 Homeland Security and Intelligence (3)	Major
Elective (3)	Elective
HMLS 416 Homeland Security and International Relations (3)	Major
WRG 391 Advanced Research Writing (3)	General education/communications
Elective (3)	Elective

Continued

BACHELOR'S DEGREE PROGRAMS CURRICULA

Homeland Security, continued

PSAD 410 Public Safety Research and Technology (3)	Major
Elective (3)	Elective
Elective (3)	Elective
PSAD 414 Public Safety Administration Ethics (3)	Major
Elective (3)	Elective
Elective (3)	Elective
PSAD 416 Public Safety Leadership (3)	Major
Elective (3)	Elective
Elective (3)	Elective
HMLS 304 Strategic Planning in Homeland Security (3)	Major
Elective (3)	Elective
HMLS 495 Homeland Security Issues and Challenges (3)	Major/capstone
Elective (1)	Elective

Minor in Homeland Security

The homeland security minor complements the skills you gain in your major discipline by providing knowledge of the concepts of domestic and international security.

Courses in the Minor (15 Credits)

A minor in homeland security requires the completion of the following courses:

HMLS 302	Introduction to Homeland Security (3)
HMLS 406	Legal and Political Issues of Homeland Security (3)
HMLS 408	Infrastructure in Homeland Security (3)
HMLS 414	Homeland Security and Intelligence (3)
HMLS 416	Homeland Security and International Relations (3)

Courses already applied toward other degree requirements (e.g., major or general education) may not be applied toward the minor. At least 9 credits must be earned in upper-level courses (numbered 300 or above). Prerequisites apply for all courses.

For a listing of all the requirements for the bachelor's degree, refer to your major and pp. 40–42.

Humanities

You may seek an academic major in humanities.

Major in Humanities

Like other liberal arts majors, a major in humanities offers a solid base of critical thinking on which to build a career or further study. This major will broaden your understanding of yourself and your interaction with the world and provide a perspective on cultural and intellectual heritage while offering tools to use that knowledge in the real world.

You'll explore how individuals and groups understand their existence, their place within their cultures, and their responsibility to others and the physical world.

What You'll Learn

Through your coursework, you will learn how to

- Plan, communicate, and implement coherent and justifiable practices that improve human conditions
- Analyze ideas critically and defend recommendations for improving the conditions of society
- Act in a personally and socially responsible manner, recognizing the complexity and diversity of the human experience
- Identify and use technology to research, collect, analyze, and interpret data and effectively communicate information that educates and influences others

Degree Requirements

BA IN HUMANITIES

	Credits
General Education Courses	41
Required Major Courses	33
Minor and Elective Courses	46
Total	120

REQUIRED MAJOR COURSES (33 CREDITS)

HUMN 100	Introduction to Humanities (3)
PHIL 100	Introduction to Philosophy (3)
PHIL 140	Introduction to Moral Philosophy and Ethical Reasoning (3)

BACHELOR'S DEGREE PROGRAMS CURRICULA

HIST 115	World History I (3) <i>or HIST 116 World History II or HIST 141 Western Civilization I or HIST 142 Western Civilization II</i>
MUSC 210	Music as Cultural Expression (3) <i>or any MUSC course</i>
ARTH 372	History of Western Art 1 (3) <i>or any upper-level ARTH course</i>
PHIL 304	Contemporary Social Justice Issues (3) <i>or any upper-level PHIL course</i>
HUMN 351	Myth in the World (3) <i>or any upper-level HUMN course</i>
PHIL 349	Religions of the West (3) <i>or any upper-level PHIL course</i>
ENGL 406	Shakespeare Studies (3) <i>or any upper-level ENGL course</i>
HUMN 495	Humanities Seminar (3)

Course Sequencing

The following table is designed to provide an optimal order for taking both required and recommended general education, major, and elective courses for this program. Your plan will be unique to you, based on your previous education. See pp. 40–42 for information on general education and overall requirements for completing a bachelor's degree. Contact an advisor if you have any questions about your academic advisement report.

Major and related requirements are listed in **bold**.

BA IN HUMANITIES

Recommended and Required Courses	Requirement(s) Fulfilled
LIBS 150 Introduction to Research (1)	General education/computing and research
PACE 111C Program and Career Exploration in Communication/Humanities (3)	General education/computing and research
WRTG 111 Academic Writing I (3)	General education/communications
CMST 301 Digital Media and Society (3)	General education/computing and research
NUTR 100 Elements of Nutrition (3)	General education/biological and physical sciences
HUMN 100 Introduction to Humanities (3)	Major
SPCH 100 Foundations of Oral Communication (3)	General education/communications
MATH 105 Topics for Mathematical Literacy (3)	General education/mathematics

WRTG 112 Academic Writing II (3)	General education/communications
PHIL 100 Introduction to Philosophy (3)	Major
ENGL 240 Introduction to Fiction, Poetry, and Drama (3)	General education/arts and humanities
BIOL 103 Introduction to Biology (4)	General education/biological and physical sciences
BEHS 103 Technology in Contemporary Society (3)	General education/behavioral and social sciences
ARTH 334 Understanding Movies (3)	General education/arts and humanities
Elective (3)	Elective
ECON 103 Economics in the Information Age (3)	General education/behavioral and social sciences
PHIL 140 Introduction to Moral Philosophy and Ethical Reasoning (3)	Major
Elective (3)	Elective
HIST 115 World History I (3)	Major
Elective (3)	Elective
MUSC 210 Music as Cultural Expression (3)	Major
Elective (3)	Elective
ARTH 372 History of Western Art I (3)	Major
WRTG 391 Advanced Research Writing (3)	General education/communications
Elective (3)	Elective
PHIL 304 Contemporary Social Justice Issues (3)	Major
Elective (3)	Elective
Elective (3)	Elective
HUMN 351 Myth in the World (3)	Major
Elective (3)	Elective
Elective (3)	Elective
PHIL 349 Religions of the West (3)	Major
Elective (3)	Elective
Elective (3)	Elective
ENGL 406 Shakespeare Studies (3)	Major
Elective (3)	Elective
HUMN 495 Humanities Seminar (3)	Major/capstone
Elective (1)	Elective

BACHELOR'S DEGREE PROGRAMS CURRICULA

Human Resource Management

You may seek either an academic major or minor in human resource management.

Major in Human Resource Management

With a degree in human resource management from UMGC, you'll find employment opportunities in nearly every industry. Our bachelor's degree program is perfect for those who have some experience in HR, as well as those who want to transition into the HR profession.

You'll gain a comprehensive understanding of human resource functions—such as resource planning; recruitment, selection, placement, and orientation of employees; training and career development; labor relations; performance appraisal and rewards programs; and development of personnel policies and procedures—in private- and public-sector settings. Additionally, you'll explore the ways that human behavior, laws, labor relations, and diversity issues can intersect and affect a company's culture and ultimately its progress.

What You'll Learn

Through your coursework, you will learn how to

- Apply business knowledge, reflective practices, and ethical leadership skills that drive learning and self-improvement
- Apply knowledge of human behavior, labor relations, and current laws and regulations to produce a working environment that is safe, fair, and compliant with regulations
- Help create a culture in which all employees are motivated and valued
- Create, implement, and assess training, development, and rewards programs that foster employee and organizational learning and development
- Recognize the diversity of cultures and worldviews that inform human behavior and respond constructively to differences in workplaces, communities, and organizations
- Identify and use technology to research, collect, analyze, and interpret data and effectively communicate information in a professional manner

INDUSTRY CERTIFICATION

This program is designed to help prepare you for the following certification exams, listed in alphabetical order:

- Global Professional in Human Resources (GPHR)
- Professional in Human Resources (PHR)
- Senior Professional in Human Resources (SPHR)
- SHRM-Certified Professional (SHRM-CP)

Degree Requirements

BS IN HUMAN RESOURCE MANAGEMENT

	Credits
General Education Courses	41
Required Major Courses	36
Minor and Elective Courses	43
Total	120

REQUIRED MAJOR COURSES (36 CREDITS)

HRMN 300	Human Resource Management (3)
HRMN 302	Organizational Communication (3)
HRMN 362	Labor Relations (3)
HRMN 367	Organizational Culture and Change (3)
HRMN 395	The Total Rewards Approach to Compensation Management (3)
HRMN 400	Human Resource Management: Issues and Problems (3)
HRMN 406	Employee Training and Development (3)
BMGT 364	Management and Organization Theory (3)
FINC 331	Finance for the Nonfinancial Manager (3)
HRMN 408	Employment Law for Business (3)
HRMN 467	Global Human Resource Management (3)
HRMN 495	Contemporary Issues in Human Resource Management Practice (3)

RELATED REQUIRED COURSE

Note: The following required course may be applied to general education or elective requirements.

IFSM 300	Information Systems in Organizations
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BACHELOR'S DEGREE PROGRAMS CURRICULA

Course Sequencing

The following table is designed to provide an optimal order for taking both required and recommended general education, major, and elective courses for this program. Your plan will be unique to you, based on your previous education. See pp. 40–42 for information on general education and overall requirements for completing a bachelor's degree. Contact an advisor if you have any questions about your academic advisement report.

Major and related requirements are listed in **bold**.

BS IN HUMAN RESOURCE MANAGEMENT	
Recommended and Required Courses	Requirement(s) Fulfilled
LIBS 150 Introduction to Research (1)	General education/computing and research
PACE 111B Program and Career Exploration in Business (3)	General education/computing and research
WRWG 111 Academic Writing I (3)	General education/communications
WRWG 112 Academic Writing II (3)	General education/communications
NUTR 100 Elements of Nutrition (3)	General education/biological and physical sciences
HRMN 300 Human Resource Management (3)	Major
SPCH 100 Foundations of Oral Communication (3)	General education/communications
MATH 105 Topics for Mathematical Literacy (3)	General education/mathematics
IFSM 300 Information Systems in Organizations (3)	Related and general education/computing and research
HRMN 302 Organizational Communication (3)	Major
HUMN 100 Introduction to Humanities (3)	General education/arts and humanities
BIOL 103 Introduction to Biology (4)	General education/biological and physical sciences
BEHS 103 Technology in Contemporary Society (3)	General education/behavioral and social sciences
ARTH 334 Understanding Movies (3)	General education/arts and humanities
Elective (3)	Elective
ECON 103 Economics in the Information Age (3)	General education/behavioral and social sciences
HRMN 362 Labor Relations (3)	Major
Elective (3)	Elective
HRMN 367 Organizational Culture and Change (3)	Major
Elective (3)	Elective

HRMN 395 The Total Rewards Approach to Compensation Management (3)	Major
Elective (3)	Elective
HRMN 400 Human Resource Management: Issues and Problems (3)	Major
WRWG 394 Advanced Business Writing (3)	General education/communications
Elective (3)	Elective
HRMN 406 Employee Training and Development (3)	Major
Elective (3)	Elective
Elective (3)	Elective
BMGT 364 Management and Organization Theory (3)	Major
Elective (3)	Elective
Elective (3)	Elective
FINC 331 Finance for the Nonfinancial Manager (3)	Major
Elective (3)	Elective
Elective (3)	Elective
HRMN 408 Employment Law for Business (3)	Major
Elective (3)	Elective
Elective (3)	Elective
HRMN 467 Global Human Resource Management (3)	Major
Elective (3)	Elective
HRMN 495 Contemporary Issues in Human Resource Management Practice (3)	Major/capstone
Elective (1)	Elective

Minor in Human Resource Management

The human resource management minor complements the skills you gain in your major discipline by examining the human resource functions in a private- or public-sector organizational setting. These functions include human resource planning; recruitment, selection, and placement; employee appraisal and compensation; employee training and career development; management of labor relations; and development of a human resource department implementation plan.

BACHELOR'S DEGREE PROGRAMS CURRICULA

Courses in the Minor (15 Credits)

A minor in human resource management requires the completion of 15 credits of coursework in human resource management. Any HRMN courses apply. It is recommended that you take HRMN 300 and 400 for the minor (if you have not already applied the courses elsewhere in the degree).

Courses already applied toward other degree requirements (e.g., major or general education) may not be applied toward the minor. At least 9 credits must be earned in upper-level courses (numbered 300 or above). Prerequisites apply for all courses.

For a listing of all the requirements for the bachelor's degree, refer to your major and pp. 40–42.

Information Systems Management

You may seek either an academic major or minor in information systems management.

Major in Information Systems Management

Information systems management is a critical part of the strategic decision-making process in virtually all of today's public and private organizations. That means managers who can lead the teams that integrate information systems with general business processes are in high demand.

Developed by chief information officers and other high-level IT professionals, the bachelor's degree program in information systems management at UMGC is well suited for those looking to move into a management position and bridge the gap between an organization's functional users and technical developers.

What You'll Learn

Through your coursework, you will learn how to

- Evaluate, select, and apply analytical and measurement methods/tools and system development life-cycle methodologies to meet organizational needs
- Research, assess, recommend, select, and implement information technology that aligns with organizational needs, provides continuity, and meets business objectives
- Communicate effectively orally, visually, and in writing to determine stakeholders' business requirements, explain how the requirements will be met, and provide ongoing information

- Protect organizations' critical information assets responsibly by integrating cybersecurity best practices and risk management throughout global enterprises
- Plan, execute, and evaluate technology solutions to achieve strategic goals by managing high-performing teams and projects

INDUSTRY CERTIFICATION

This program is designed to help prepare you for the following certification exams, listed in alphabetical order:

- Certified Associate in Project Management (CAPM)
- PMI Agile Certified Practitioner (PMI-ACP)
- Project Management Professional (PMP)

Degree Requirements

BS IN INFORMATION SYSTEMS MANAGEMENT

	Credits
General Education Courses	41
Required Major Courses	33
Minor and Elective Courses	46
Total	120

REQUIRED MAJOR COURSES (33 CREDITS)

IFSM 300	Information Systems in Organizations (3)
IFSM 301	Foundations of Information Systems Management (3)
IFSM 304	Ethics in Information Technology (3)
CSIA 300	Cybersecurity for Leaders and Managers (3)
IFSM 310	Software and Hardware Infrastructure Concepts (3)
IFSM 311	Enterprise Architecture (3)
IFSM 330	Business Intelligence and Data Analytics (3)
IFSM 370	Telecommunications in Information Systems (3)
IFSM 438	Information Systems Project Management (3)
IFSM 461	Systems Analysis and Design (3)
IFSM 495	Trends and Practical Applications in Information Systems Management (3)

BACHELOR'S DEGREE PROGRAMS CURRICULA

RELATED REQUIRED COURSE

Note: The following required course may be applied to general education or elective requirements.

CMIS 102 Introduction to Problem Solving and Algorithm Design

Course Sequencing

The following table is designed to provide an optimal order for taking both required and recommended general education, major, and elective courses for this program. Your plan will be unique to you, based on your previous education. See pp. 40–42 for information on general education and overall requirements for completing a bachelor's degree. Contact an advisor if you have any questions about your academic advisement report.

Major and related requirements are listed in **bold**.

BS IN INFORMATION SYSTEMS MANAGEMENT	
Recommended and Required Courses	Requirement(s) Fulfilled
LIBS 150 Introduction to Research (1)	General education/computing and research
PACE 111T Program and Career Exploration in Technology (3)	General education/computing and research
WRWG 111 Academic Writing I (3)	General education/communications
WRWG 112 Academic Writing II (3)	General education/communications
NUTR 100 Elements of Nutrition (3)	General education/biological and physical sciences
IFSM 300 Information Systems in Organizations (3)	Major
SPCH 100 Foundations of Oral Communication (3)	General education/communications
STAT 200 Introduction to Statistics (3)	General education/mathematics
CMIS 102 Introduction to Problem Solving and Algorithm Design (3)	Related and general education/computing and research
IFSM 301 Foundations of Information Systems Management (3)	Major
HIST 125 Technological Transformations (3)	General education/arts and humanities
BIOL 103 Introduction to Biology (4)	General education/biological and physical sciences
BEHS 103 Technology in Contemporary Society (3)	General education/behavioral and social sciences
ARTH 334 Understanding Movies (3)	General education/arts and humanities
Elective (3)	Elective

ECON 103 Economics in the Information Age (3)	General education/behavioral and social sciences
IFSM 304 Ethics in Information Technology (3)	Major
Elective (3)	Elective
CSIA 300 Cybersecurity for Leaders and Managers (3)	Major
Elective (3)	Elective
Elective (3)	Elective
Elective (3)	Elective
IFSM 310 Software and Hardware Infrastructure Concepts (3)	Major
WRWG 393 Advanced Technical Writing (3)	General education/communications
Elective (3)	Elective
IFSM 330 Business Intelligence and Data Analytics (3)	Major
Elective (3)	Elective
Elective (3)	Elective
IFSM 311 Enterprise Architecture (3)	Major
Elective (3)	Elective
Elective (3)	Elective
IFSM 370 Telecommunications in Information Systems (3)	Major
Elective (3)	Elective
Elective (3)	Elective
IFSM 438 Information Systems Project Management (3)	Major
Elective (3)	Elective
Elective (3)	Elective
IFSM 461 Systems Analysis and Design (3)	Major
Elective (3)	Elective
Elective (3)	Elective
IFSM 495 Trends and Practical Applications in Information Systems Management (3)	Major/capstone
Elective (1)	Elective

Honor Society

Information on eligibility for membership in the UMGC chapter of Upsilon Pi Epsilon, the national academic honor society for the computing and information disciplines, is available on p. 292.

BACHELOR'S DEGREE PROGRAMS CURRICULA

Minor in Information Systems Management

The information systems management minor complements the skills you gain in your major discipline by helping you develop your abilities to conceptualize and manage the design and implementation of high-quality information systems.

Courses in the Minor (15 Credits)

A minor in information systems management requires the completion of 15 credits of coursework in information systems management. All IFSM courses apply.

Courses already applied toward other degree requirements (e.g., major or general education) may not be applied toward the minor. At least 9 credits must be earned in upper-level courses (numbered 300 or above). Prerequisites apply for all courses.

For a listing of all the requirements for the bachelor's degree, refer to your major and pp. 40–42.

Laboratory Management

If you have completed the required lower-level coursework for the laboratory management major—either within an Associate of Applied Science degree program at a community college with which UMGC has an articulation agreement or within another appropriate transfer program—you may seek an academic major in laboratory management. Consult an advisor before electing this major.

Major in Laboratory Management

UMGC's program in laboratory management is unique in Maryland: no other university in the state offers a bachelor's degree program in laboratory management. Yet the need within the biotechnology industry for employees with both scientific and management skills is great.

The laboratory management major will help you prepare to coordinate the activities that contribute to a well-ordered laboratory by combining an in-depth study of scientific concepts and procedures with hands-on laboratory management practice.

What You'll Learn

Through your coursework, you will learn how to

- Create a healthy, safe, and productive workplace by appropriately hiring, training, supporting, and evaluating laboratory personnel
- Plan, organize, and direct the daily work activities of a laboratory setting by working independently and as a member of a team

- Communicate in a clear, well-organized manner that effectively persuades, informs, and clarifies ideas, information, and laboratory techniques/procedures to staff, the scientific community, and the public
- Practice ethical standards of integrity, honesty, and fairness as a laboratory manager
- Monitor and maintain laboratory-related documentation, equipment, and supplies necessary for conducting efficient, safe, cost-effective, and hygienic laboratory operations
- Manage scientific and laboratory practices and procedures by complying with and adhering to national, state, and local standards, policies, protocols, and regulations

Degree Requirements

BS OR BTPS IN LABORATORY MANAGEMENT

	Credits
General Education Courses	41
Required Major Courses	36
Minor and Elective Courses	43
Total	120

REQUIRED MAJOR COURSES (36 CREDITS)

BIOL 325	Inquiries in Biological Science (3)
BMGT 364	Management and Organization Theory (3)
FINC 331	Finance for the Nonfinancial Manager (3)
NSCI 301	Laboratory Management and Safety (3)
BIOL 486A/B	Workplace Learning in Biology (6) <i>or any related internship through Workplace Learning</i>
BIOL 495	Current Trends and Applications in the Life Sciences (3)

Lower-level coursework in biology, biochemistry, biotechnology, chemistry, microbiology, or molecular biology, including 12 credits in lab science, brought in transfer from the associate degree (15)

RELATED REQUIRED COURSES

Note: The following required courses may be applied to general education or elective requirements.

Science coursework in biotechnology, biochemistry, cell biology, chemistry, genetics, immunology, microbiology, molecular biology, physics, and virology, to a total of 14 credits

BACHELOR'S DEGREE PROGRAMS

CURRICULA

Course Sequencing

See pp. 40–42 for information on general education and overall requirements for completing a bachelor's degree. Contact an advisor if you have any questions about your academic advisement report.

Law for Business

You may seek an academic minor in law for business.

Minor in Law for Business

The law for business minor complements the knowledge and skills you gain in your major discipline by providing opportunities to achieve substantive knowledge and practical skill competencies in selected areas of law relevant to business.

Courses in the Minor (15 Credits)

A minor in law for business requires the completion of 15 credits of coursework chosen from the following:

BMGT 380	Business Law I
BMGT 381	Business Law II
COMM 400	Mass Media Law
HRMN 408	Employment Law for Business
LGST 200	Techniques of Legal Research
LGST 201	Legal Writing
LGST 312	Torts
LGST 325	Litigation
LGST 340	Contract Law

Courses already applied toward other degree requirements (e.g., major or general education) may not be applied toward the minor. At least 9 credits must be earned in upper-level courses (numbered 300 or above). Prerequisites apply for all courses.

For a listing of all the requirements for the bachelor's degree, refer to your major and pp. 40–42.

Legal Studies

You may seek an academic major in legal studies.

Major in Legal Studies

In the legal studies major, you'll acquire the tools you need to confidently and competently thrive in legal environments. In this program, you'll learn to produce and review legal forms and documents, apply statutes to legal cases, and assess fact patterns.

With your degree, you'll be equipped to conduct legal analysis, draft various types of legal documents, and perform research in the legal environment.

What You'll Learn

Through your coursework, you will learn how to

- Conduct research using appropriate resources to identify relevant, current legal authority
- Draft documents that reflect critical thinking and legal reasoning to inform, evaluate, and advocate on legal issues
- Apply an understanding of legal concepts and procedures to efficiently and ethically support the resolution of legal disputes
- Synthesize relevant information and complete a wide variety of forms and documents used to meet client objectives

Degree Requirements

BS IN LEGAL STUDIES

	Credits
General Education Courses	41
Required Major Courses	33
Minor and Elective Courses	46
Total	120

REQUIRED MAJOR COURSES (33 CREDITS)

LGST 101	Introduction to Law (3)
LGST 200	Techniques of Legal Research (3)
LGST 201	Legal Writing (3)
LGST 204	Legal Ethics (3)
LGST 301	Advanced Legal Writing (3)

BACHELOR'S DEGREE PROGRAMS CURRICULA

LGST 312	Torts (3)
LGST 315	Domestic Relations (3)
LGST 320	Criminal Law and Procedures (3)
LGST 325	Litigation (3)
LGST 340	Contract Law (3)
LGST 495	Advanced Professional Practices (3)

Course Sequencing

The following table is designed to provide an optimal order for taking both required and recommended general education, major, and elective courses for this program. Your plan will be unique to you, based on your previous education. See pp. 40–42 for information on general education and overall requirements for completing a bachelor's degree. Contact an advisor if you have any questions about your academic advisement report.

Major and related requirements are listed in **bold**.

BS IN LEGAL STUDIES	
Recommended and Required Courses	Requirement(s) Fulfilled
LIBS 150 Introduction to Research (1)	General education/computing and research
PACE 111P Program and Career Exploration in Public Safety (3)	General education/computing and research
WRWG 111 Academic Writing I (3)	General education/communications
CMIS 111 Social Networking and Cybersecurity Best Practices (3)	General education/computing and research
NUTR 100 Elements of Nutrition (3)	General education/biological and physical sciences
LGST 101 Introduction to Law (3)	Major
SPCH 100 Foundations of Oral Communication (3)	General education/communications
MATH 105 Topics for Mathematical Literacy (3)	General education/mathematics
WRWG 112 Academic Writing II (3)	General education/communications
LGST 200 Techniques of Legal Research (3)	Major
HUMN 100 Introduction to Humanities (3)	General education/arts and humanities
BIOL 103 Introduction to Biology (4)	General education/biological and physical sciences
BEHS 103 Technology in Contemporary Society (3)	General education/behavioral and social sciences
ARTH 334 Understanding Movies (3)	General education/arts and humanities
Elective (3)	Elective

ECON 103 Economics in the Information Age (3)	General education/behavioral and social sciences
LGST 201 Legal Writing (3)	Major
Elective (3)	Elective
LGST 204 Legal Ethics (3)	Major
Elective (3)	Elective
LGST 301 Advanced Legal Writing (3)	Major
Elective (3)	Elective
LGST 312 Torts (3)	Major
WRWG 394 Advanced Business Writing (3)	General education/communications
Elective (3)	Elective
LGST 315 Domestic Relations (3)	Major
Elective (3)	Elective
Elective (3)	Elective
LGST 320 Criminal Law and Procedures (3)	Major
Elective (3)	Elective
Elective (3)	Elective
LGST 325 Litigation (3)	Major
Elective (3)	Elective
Elective (3)	Elective
LGST 340 Contract Law (3)	Major
Elective (3)	Elective
Elective (3)	Elective
Elective (3)	Elective
LGST 495 Advanced Professional Practices (3)	Major/capstone
Elective (1)	Elective

BACHELOR'S DEGREE PROGRAMS CURRICULA

Management Studies

You may seek an academic major in management studies.

Major in Management Studies

Today, many business, government, public service, and technical environments require knowledge of management principles from multiple disciplines. UMGC's program in management studies can help you gain that expertise through a course of study focused on decision making, problem solving, and leadership.

What You'll Learn

Through your coursework, you will learn how to

- Apply leadership skills to promote communication, ethical behavior, and quality performance
- Implement employment practices, encourage team building, and mentor staff members
- Communicate effectively with culturally diverse audiences using a variety of formats and technologies
- Assess and develop performance measures, feedback, and coaching that facilitates employee development
- Employ self-reflection and mindfulness of individual and cultural differences when interacting with others
- Research, plan, and develop processes and procedures that ensure organizational performance

Degree Requirements

BS IN MANAGEMENT STUDIES	
	Credits
General Education Courses	41
Required Major Courses	33
Minor and Elective Courses	46
Total	120

REQUIRED MAJOR COURSES (33 CREDITS)

BMGT 110	Introduction to Business and Management (3)
ACCT 301	Accounting for Nonaccounting Managers (3) or ACCT 220 Principles of Accounting I
BMGT 364	Management and Organization Theory (3)
BMGT 365	Organizational Leadership (3)

BMGT 464	Organizational Behavior (3) or BMGT 465 Organizational Development and Transformation
BMGT 317	Decision Making (3)
BMGT 305	Knowledge Management (3) or any upper-level ACCT, BMGT, FINC, HRMN, or MRKT course
BMGT 304	Managing E-Commerce in Organizations (3) or any upper-level ACCT, BMGT, FINC, HRMN, or MRKT course
BMGT 484	Managing Teams in Organizations (3) or any upper-level ACCT, BMGT, FINC, HRMN, or MRKT course
BMGT 496	Business Ethics (3)
BMGT 485	Leadership for the 21st Century (3)

RELATED REQUIRED COURSES

Note: The following required courses may be applied to general education or elective requirements.

ECON 201	Principles of Macroeconomics or ECON 203 Principles of Microeconomics
IFSM 300	Information Systems in Organizations
STAT 200	Introduction to Statistics

Course Sequencing

The following table is designed to provide an optimal order for taking both required and recommended general education, major, and elective courses for this program. Your plan will be unique to you, based on your previous education. See pp. 40–42 for information on general education and overall requirements for completing a bachelor's degree. Contact an advisor if you have any questions about your academic advisement report.

Major and related requirements are listed in **bold**.

BS IN MANAGEMENT STUDIES	
Recommended and Required Courses	Requirement(s) Fulfilled
LIBS 150 Introduction to Research (1)	General education/computing and research
PACE 111B Program and Career Exploration in Business (3)	General education/computing and research
WRTG 111 Academic Writing I (3)	General education/communications
WRTG 112 Academic Writing II (3)	General education/communications
NUTR 100 Elements of Nutrition (3)	General education/biological and physical sciences

Continued

BACHELOR'S DEGREE PROGRAMS CURRICULA

Management Studies, continued

BMGT 110 Introduction to Business and Management (3)	Major
COMM 390 Writing for Managers	General education/communications
STAT 200 Introduction to Statistics (3)	Related and general education/mathematics
IFSM 300 Information Systems in Organizations (3)	Related and general education/computing and research
ACCT 301 Accounting for Nonaccounting Managers (3)	Major
HUMN 100 Introduction to Humanities (3)	General education/arts and humanities
BIOL 103 Introduction to Biology (4)	General education/biological and physical sciences
BEHS 103 Technology in Contemporary Society (3)	General education/behavioral and social sciences
ARTH 334 Understanding Movies (3)	General education/arts and humanities
Elective (3)	Elective
ECON 201 Principles of Macroeconomics (3)	Related and general education/behavioral and social sciences
BMGT 364 Management and Organization Theory (3)	Major
Elective (3)	Elective
BMGT 365 Organizational Leadership (3)	Major
Elective (3)	Elective
BMGT 304 Managing E-Commerce in Organizations (3)	Major
Elective (3)	Elective
BMGT 305 Knowledge Management (3)	Major
WRITG 391 Advanced Research Writing (3)	General education/communications
Elective (3)	Elective
Elective (3)	Elective
BMGT 484 Managing Teams in Organizations (3)	Major
Elective (3)	Elective
Elective (3)	Elective
BMGT 317 Decision Making (3)	Major
Elective (3)	Elective
Elective (3)	Elective
BMGT 464 Organizational Behavior (3)	Major

Elective (3)	Elective
Elective (3)	Elective
BMGT 496 Business Ethics (3)	Major
Elective (3)	Elective
Elective (3)	Elective
Elective (3)	Elective
BMGT 485 Leadership for the 21st Century (3)	Major/capstone
Elective (1)	Elective

Marketing

You may seek either an academic major or minor in marketing.

Major in Marketing

Fueled by increasing globalization and the developing role of the internet in business, the field of marketing is constantly evolving. As global competition intensifies, organizations increasingly rely on skilled professionals to identify and develop profitable new products and markets.

What You'll Learn

Through your coursework, you will learn how to

- Apply marketing knowledge and skills to meet organizational goals through analytic and managerial techniques related to customers, executives, finance, information technology, law, operational domains, and customer relations
- Employ strategic marketing skills, including scenario planning, market intelligence, customer profiles, marketing plans, and competitive analysis, to respond to organizational marketing challenges
- Conduct research, analyze data, create effective marketing plans, and support decisions that meet the needs and desires of global customers
- Act with personal and professional integrity in the global marketplace of employers, peers, and customers
- Cultivate and maintain positive interpersonal relationships based on engagement and positive interaction with teams, managers, and customers

BACHELOR'S DEGREE PROGRAMS CURRICULA

Degree Requirements

BS IN MARKETING	
	Credits
General Education Courses	41
Required Major Courses	36
Minor and Elective Courses	43
Total	120

REQUIRED MAJOR COURSES (36 CREDITS)

BMGT 110	Introduction to Business and Management (3)
ACCT 301	Accounting for Nonaccounting Managers (3)
BMGT 496	Business Ethics (3)
MRKT 310	Marketing Principles (3)
MRKT 354	Integrated Marketing Communications (3)
MRKT 395	Managing Customer Relationships (3)
MRKT 410	Consumer Behavior (3)
MRKT 412	Marketing Research (3)
MRKT 454	Global Marketing (3)
MRKT 457	Digital Marketing (3)
MRKT 314	Nonprofit Marketing (3) <i>or any MRKT course</i>
MRKT 495	Strategic Marketing Management (3)

RELATED REQUIRED COURSES

Note: The following required courses may be applied to general education or elective requirements.

ECON 201	Principles of Macroeconomics
ECON 203	Principles of Microeconomics
IFSM 300	Information Systems in Organizations

Course Sequencing

The following table is designed to provide an optimal order for taking both required and recommended general education, major, and elective courses for this program. Your plan will be unique to you, based on your previous education. See pp. 40–42 for information on general education and overall requirements for completing a bachelor's degree. Contact an advisor if you have any questions about your academic advisement report.

Major and related requirements are listed in **bold**.

BS IN MARKETING	
Recommended and Required Courses	Requirement(s) Fulfilled
LIBS 150 Introduction to Research (1)	General education/computing and research
PACE 111B Program and Career Exploration in Business (3)	General education/computing and research
WRTG 111 Academic Writing I (3)	General education/communications
WRTG 112 Academic Writing II (3)	General education/communications
NUTR 100 Elements of Nutrition (3)	General education/biological and physical sciences
MRKT 310 Marketing Principles (3)	Major
SPCH 100 Foundations of Oral Communication (3)	General education/communications
MATH 105 Topics for Mathematical Literacy (3)	General education/mathematics
IFSM 300 Information Systems in Organizations (3)	Related and general education/computing and research
BMGT 110 Introduction to Business and Management (3)	Major
HUMN 100 Introduction to Humanities (3)	General education/arts and humanities
BIOL 103 Introduction to Biology (4)	General education/biological and physical sciences
ECON 201 Principles of Macroeconomics (3)	Related and general education/behavioral and social sciences
ARTH 334 Understanding Movies (3)	General education/arts and humanities
Elective (3)	Elective
ECON 203 Principles of Microeconomics (3)	Related and general education/behavioral and social sciences
MRKT 354 Integrated Marketing Communications (3)	Major
Elective (3)	Elective
ACCT 301 Accounting for Nonaccounting Managers (3)	Major
Elective (3)	Elective
MRKT 395 Managing Customer Relationships (3)	Major
Elective (3)	Elective
MRKT 410 Consumer Behavior (3)	Major
WRTG 394 Advanced Business Writing (3)	General education/communications
Elective (3)	Elective

Continued

BACHELOR'S DEGREE PROGRAMS CURRICULA

Marketing, continued

BMGT 496 Business Ethics (3)	Major
Elective (3)	Elective
Elective (3)	Elective
MRKT 412 Marketing Research (3)	Major
Elective (3)	Elective
Elective (3)	Elective
MRKT 454 Global Marketing (3)	Major
Elective (3)	Elective
Elective (3)	Elective
MRKT 457 Digital Marketing (3)	Major
Elective (3)	Elective
MRKT 314 Nonprofit Marketing (3)	Major
Elective (3)	Elective
Elective (3)	Elective
MRKT 495 Strategic Marketing Management (3)	Major/capstone
Elective (1)	Elective

Minor in Marketing

The marketing minor complements the skills you gain in your major discipline by enhancing the knowledge and skills related to marketing situations and processes and the emerging global marketplace.

Courses in the Minor (15 Credits)

A minor in marketing requires the completion of 15 credits of coursework in marketing. All MRKT courses apply. It is recommended that you take MRKT 310 as the first course in the minor (if you have not already applied the course toward other degree requirements).

Courses already applied toward other degree requirements (e.g., major or general education) may not be applied toward the minor. At least 9 credits must be earned in upper-level courses (numbered 300 or above). Prerequisites apply for all courses.

For a listing of all the requirements for the bachelor's degree, refer to your major and pp. 40–42.

Mathematical Sciences

You may seek an academic minor in mathematical sciences.

Minor in Mathematical Sciences

The mathematical sciences minor complements the skills you gain in your major discipline by developing skills in solving mathematical problems and addressing complex and technical materials and by providing a mathematical background to support study in other areas, such as business and management, computer and information technology, and the biological and social sciences.

Courses in the Minor (18 Credits)

A minor in mathematical sciences requires the completion of 18 credits of coursework in MATH courses numbered 140 or higher, including at least 3 credits at the 300 or 400 level. Courses may be chosen from the following:

MATH 140	Calculus I
MATH 141	Calculus II
MATH 241	Calculus III
MATH 246	Differential Equations
MATH 301	Concepts of Real Analysis
MATH 340	Linear Algebra

No more than two courses may satisfy requirements for both the academic major and the minor. Prerequisites apply for all courses.

For a listing of all the requirements for the bachelor's degree, refer to your major and pp. 40–42.

Natural Science

You may seek an academic minor in natural science.

Minor in Natural Science

The natural science minor complements the skills you gain in your major by providing an underlying scientific basis on which to build a career in natural science, life science, physical science, and the allied health fields, as well as bioinformatics, environmental management, science journalism, and science education.

Courses in the Minor (17 Credits)

A minor in natural science requires the completion of 17 credits of coursework in natural science, chosen from any courses in astronomy, biology, chemistry, geology, natural science, and physics.

BACHELOR'S DEGREE PROGRAMS CURRICULA

Courses already applied toward other degree requirements (e.g., major or general education) may not be applied toward the minor. At least 9 credits must be earned in upper-level courses (numbered 300 or above). Prerequisites apply for all courses.

For a listing of all the requirements for the bachelor's degree, refer to your major and pp. 40–42.

Nursing for Registered Nurses

Students who have an associate degree in nursing or a diploma from a registered nursing education program that is recognized by the appropriate state board of nursing and who reside in and have an active, unencumbered nursing license in an approved state* may seek an academic major in nursing for registered nurses. This program is not intended to lead to initial professional licensure.**

Major in Nursing for Registered Nurses

UMGC's bachelor's degree program in nursing for registered nurses provides a pathway for career advancement in clinical research or public health nursing, as well as preparation for graduate study, by building on your established clinical and practical experiences. Accredited by the Commission on Collegiate Nursing Education, this program will help equip you to assume the role of the professional nurse in diverse and challenging settings, take on responsibility for client care, and provide exceptional evidence-based nursing care to patients.

What You'll Learn

Through your coursework, you will learn how to

- Demonstrate clinical reasoning in selecting and applying health-care approaches for individuals, families, and communities
- Evaluate and apply research to promote evidence-based nursing practice
- Apply management and leadership concepts in various settings to promote health
- Evaluate and communicate the effects of health policy and health-care systems on the nursing profession and the delivery of care
- Demonstrate an understanding of the value of continuous personal and professional development as healthcare evolves

Accreditation

The baccalaureate degree in nursing at UMGc is accredited by the Commission on Collegiate Nursing Education (CCNE), 655 K Street, NW, Suite 750, Washington, DC 20001-2399 (202-887-6791).

* See umgc.edu/nursing for the most up-to-date list of approved states.

** See umgc.edu/professional-licensure for more information about professional licensure.

Degree Requirements

BSN IN NURSING FOR REGISTERED NURSES

	Credits
General Education Courses	41
Required Major Courses	30
RN Licensure	30
Minor and Elective Courses	19
Total	120

REQUIRED MAJOR COURSES (30 CREDITS)

NURS 300	Science and Research in Nursing (3)
IFSM 305	Information Systems in Healthcare Organizations (3)
NURS 362	Health Assessment for Registered Nurses (4)
NURS 350	Global Health Issues (3)
HMG T 372	Legal and Ethical Issues in Healthcare (3)
NURS 420	Advocacy and Politics in Nursing (3)
NURS 410	Applying Evidence-Based Practice in Nursing (3)
NURS 462	Nursing Care of the Family and Community (4)
NURS 485	Leadership and Management in Professional Nursing Practice (4)

RELATED REQUIRED COURSES

Note: The following required courses may be applied to general education or elective requirements.

STAT 200	Introduction to Statistics
PSYC 100	Introduction to Psychology
SOCY 100	Introduction to Sociology

General microbiology with lab
Anatomy and physiology I with lab
Anatomy and physiology II with lab

Course Sequencing

See pp. 40–42 for information on general education and overall requirements for completing a bachelor's degree. Contact an advisor if you have any questions about your academic advisement report.

BACHELOR'S DEGREE PROGRAMS

CURRICULA

Personal Financial Planning

You may seek an academic minor in personal financial planning.

Minor in Personal Financial Planning

The personal financial planning minor complements the skills you gain in your major discipline by providing a study of financial management and planning designed to prepare you for the Certified Financial Planner (CFP) exam.

This minor is designed primarily for students majoring in finance. If you are majoring in another field, you may need to take several courses to fulfill prerequisites. Consult an advisor for more information.

Courses in the Minor (15 Credits)

A minor in personal financial planning requires the completion of the following courses:

FINC 321	Fundamentals of Building Wealth (3)
FINC 352	Life and Health Insurance (3)
ACCT 323	Federal Income Tax I (3)
FINC 355	Retirement and Estate Planning (3)
FINC 490	Financial Plan Development (3)

Courses already applied toward other degree requirements (e.g., major or general education) may not be applied toward the minor. At least 9 credits must be earned in upper-level courses (numbered 300 or above). Prerequisites apply for all courses.

For a listing of all the requirements for the bachelor's degree, refer to your major and pp. 40–42.

Philosophy

You may seek an academic minor in philosophy.

Minor in Philosophy

The philosophy minor complements the skills you gain in your major discipline by providing a study of the relationships between personal opinions and real-world issues faced by members of a pluralistic, open society.

Courses in the Minor (15 Credits)

A minor in philosophy requires the completion of the following courses:

PHIL 100	Introduction to Philosophy (3)
PHIL 110	Practical Reasoning (3)

PHIL 304	Contemporary Social Justice Issues (3)
PHIL 336	Ideas Shaping the 21st Century (3)
PHIL 348	Religions of the East (3)

Courses already applied toward other degree requirements (e.g., major or general education) may not be applied toward the minor. At least 9 credits must be earned in upper-level courses (numbered 300 or above). Prerequisites apply for all courses.

For a listing of all the requirements for the bachelor's degree, refer to your major and pp. 40–42.

Political Science

You may seek either an academic major or minor in political science.

Major in Political Science

With a major in political science, you'll develop a comprehensive understanding of U.S. government and global politics. By analyzing political structures, theory, and problems, you'll learn to interpret complex political problems in both the public and private sectors and propose potential solutions. You'll also have an opportunity to enhance your professionalism and fine-tune your communication and organizational skills.

What You'll Learn

Through your coursework, you will learn how to

- Analyze and participate in the creation of public policy at local, state, federal, and international levels by building consensus and using effective lobbying methods
- Participate in and influence government at all levels based on an understanding of the establishment, structure, and interaction of governmental institutions
- Use effective writing, research, analysis, advocacy, identification techniques, and coalition-building skills to develop and influence policy at the national and international levels
- Conduct, analyze, and evaluate theoretical and empirical research for specific problems to affect domestic and international policy by applying political theory, systems, and processes in organizational environments
- Apply knowledge of ethical principles and issues to public policy and politics

BACHELOR'S DEGREE PROGRAMS CURRICULA

Degree Requirements

BS IN POLITICAL SCIENCE	
	Credits
General Education Courses	41
Required Major Courses	30
Minor and Elective Courses	49
Total	120

REQUIRED MAJOR COURSES (30 CREDITS)

GVPT 100	Introduction to Political Science (3)
GVPT 101	Introduction to Political Theory (3)
GVPT 170	American Government (3) <i>or GVPT 200 International Political Relations</i>
GVPT 280	Comparative Politics and Governments (3)
GVPT 306	Global Political Economy (3)
GVPT 409	Terrorism, Antiterrorism, and Homeland Security (3) <i>or any upper-level GVPT course</i>
GVPT 403	Law, Morality, and War (3) <i>or any upper-level GVPT course</i>
GVPT 406	Global Terrorism (3)
GVPT 457	American Foreign Relations (3) <i>or any upper-level GVPT course</i>
GVPT 495	Advanced Seminar in Political Science (3)

Course Sequencing

The following table is designed to provide an optimal order for taking both required and recommended general education, major, and elective courses for this program. Your plan will be unique to you, based on your previous education. See pp. 40–42 for information on general education and overall requirements for completing a bachelor's degree. Contact an advisor if you have any questions about your academic advisement report.

Major and related requirements are listed in **bold**.

BS IN POLITICAL SCIENCE	
Recommended and Required Courses	Requirement(s) Fulfilled
LIBS 150 Introduction to Research (1)	General education/computing and research
PACE 111C Program and Career Exploration in Communication/Humanities (3)	General education/computing and research
WRTG 111 Academic Writing I (3)	General education/communications
CMIS 111 Social Networking and Cybersecurity Best Practices (3)	General education/computing and research
NUTR 100 Elements of Nutrition (3)	General education/biological and physical sciences
GVPT 100 Introduction to Political Science (3)	Major
SPCH 100 Foundations of Oral Communication (3)	General education/communications
MATH 105 Topics for Mathematical Literacy (3)	General education/mathematics
WRTG 112 Academic Writing II (3)	General education/communications
GVPT 101 Introduction to Political Theory (3)	Major
HUMN 100 Introduction to Humanities (3)	General education/arts and humanities
BIOL 103 Introduction to Biology (4)	General education/biological and physical sciences
BEHS 103 Technology in Contemporary Society (3)	General education/behavioral and social sciences
HIST 125 Technological Transformations (3)	General education/arts and humanities
Elective (3)	Elective
ECON 103 Economics in the Information Age (3)	General education/behavioral and social sciences
GVPT 170 American Government (3)	Major
Elective (3)	Elective
GVPT 280 Comparative Politics and Governments (3)	Major
Elective (3)	Elective
GVPT 306 Global Political Economy (3)	Major
Elective (3)	Elective
Elective (3)	Elective
WRTG 391 Advanced Research Writing (3)	General education/communications
Elective (3)	Elective

Continued

BACHELOR'S DEGREE PROGRAMS CURRICULA

Political Science, continued

GVPT 409 Terrorism, Antiterrorism, and Homeland Security (3)	Major
Elective (3)	Elective
Elective (3)	Elective
GVPT 403 Law, Morality, and War (3)	Major
Elective (3)	Elective
Elective (3)	Elective
GVPT 406 Global Terrorism (3)	Major
Elective (3)	Elective
Elective (3)	Elective
GVPT 457 American Foreign Relations (3)	Major
Elective (3)	Elective
Elective (3)	Elective
Elective (3)	Elective
GVPT 495 Advanced Seminar in Political Science (3)	Major/capstone
Elective (1)	Elective

Minor in Political Science

The political science minor complements the skills you gain in your major discipline by providing a systematic study of politics and government. It exposes you to the basic concepts, theories, policies, and roles of government at local, state, and national levels in domestic and foreign settings.

Courses in the Minor (15 Credits)

A minor in political science requires the completion of 15 credits of coursework in government and politics. All GVPT courses apply. It is recommended that you take GVPT 100, GVPT 101, or GVPT 170 as the first course in the minor (if you have not already applied the course toward other degree requirements).

Courses already applied toward other degree requirements (e.g., major or general education) may not be applied toward the minor. At least 9 credits must be earned in upper-level courses (numbered 300 or above). Prerequisites apply for all courses.

For a listing of all the requirements for the bachelor's degree, refer to your major and pp. 40–42.

Psychology

You may seek either an academic major or minor in psychology.

Major in Psychology

UMGC's bachelor's degree program in psychology will help prepare you for graduate study or a multitude of careers in the field. While acquiring a knowledge base of theory, research, and practice in psychological sciences, you'll hone your quantitative skills, written and oral communication proficiencies, analytical and scientific reasoning, and ability to analyze human behavior.

What You'll Learn

Through your coursework, you will learn how to

- Apply major concepts, theoretical perspectives, empirical findings, and historical trends in psychology to prepare for graduate study or relevant careers
- Apply basic knowledge of research methodology, statistics, measurement, guidelines, ethical standards, laws, and regulations to design, participate in, and evaluate research in a variety of contexts
- Apply knowledge of human behavior to inform personal growth; communicate effectively; solve problems; make decisions; and interact with individuals, communities, and organizations
- Use critical and creative thinking, skeptical inquiry, technology, and the scientific approach to solve problems related to current and emerging trends in psychology
- Value diversity and different perspectives, tolerate ambiguity, and act ethically to communicate appropriately with various populations

Degree Requirements

BS IN PSYCHOLOGY

	Credits
General Education Courses	41
Required Major Courses	33
Minor and Elective Courses	46
Total	120

REQUIRED MAJOR COURSES (33 CREDITS)

PSYC 100	Introduction to Psychology (3)
PSYC 300	Research Methods in Psychology (3)
PSYC 301	Biological Basis of Behavior (3)

BACHELOR'S DEGREE PROGRAMS CURRICULA

PSYC 310	Sensation and Perception (3) <i>or any upper-level PSYC course</i>
PSYC 321	Social Psychology (3)
PSYC 335	Theories of Personality (3)
PSYC 341	Memory and Cognition (3) <i>or any upper-level PSYC course</i>
PSYC 351	Lifespan Development (3) <i>or any upper-level PSYC course</i>
PSYC 353	Abnormal Psychology (3)
PSYC 436	Introduction to Clinical Psychology (3)
PSYC 495	Senior Seminar in Psychology (3)

RELATED REQUIRED COURSE

Note: The following required course may be applied to general education or elective requirements.

STAT 200	Introduction to Statistics
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Course Sequencing

The following table is designed to provide an optimal order for taking both required and recommended general education, major, and elective courses for this program. Your plan will be unique to you, based on your previous education. See pp. 40–42 for information on general education and overall requirements for completing a bachelor's degree. Contact an advisor if you have any questions about your academic advisement report.

Major and related requirements are listed in **bold**.

BS IN PSYCHOLOGY	
Recommended and Required Courses	Requirement(s) Fulfilled
LIBS 150 Introduction to Research (1)	General education/computing and research
PACE 111S Program and Career Exploration in Health and Sciences (3)	General education/computing and research
WRWG 111 Academic Writing I (3)	General education/communications
CMST 301 Digital Media and Society (3)	General education/computing and research
NUTR 100 Elements of Nutrition (3)	General education/biological and physical sciences
PSYC 100 Introduction to Psychology (3)	Major
SPCH 100 Foundations of Oral Communication (3)	General education/communications
STAT 200 Introduction to Statistics (3)	Related and general education/mathematics
WRWG 112 Academic Writing II (3)	General education/communications

PSYC 300 Research Methods in Psychology (3)	Major
HUMN 100 Introduction to Humanities (3)	General education/arts and humanities
BIOL 103 Introduction to Biology (4)	General education/biological and physical sciences
BEHS 103 Technology in Contemporary Society (3)	General education/behavioral and social sciences
ARTH 334 Understanding Movies (3)	General education/arts and humanities
Elective (3)	Elective
ECON 103 Economics in the Information Age (3)	General education/behavioral and social sciences
PSYC 301 Biological Basis of Behavior (3)	Major
Elective (3)	Elective
PSYC 310 Sensation and Perception (3)	Major
Elective (3)	Elective
PSYC 321 Social Psychology (3)	Major
Elective (3)	Elective
PSYC 335 Theories of Personality (3)	Major
WRWG 391 Advanced Research Writing (3)	General education/communications
Elective (3)	Elective
PSYC 341 Memory and Cognition (3)	Major
Elective (3)	Elective
Elective (3)	Elective
PSYC 351 Lifespan Development (3)	Major
Elective (3)	Elective
Elective (3)	Elective
PSYC 353 Abnormal Psychology (3)	Major
Elective (3)	Elective
Elective (3)	Elective
PSYC 436 Introduction to Clinical Psychology (3)	Major
Elective (3)	Elective
PSYC 495 Senior Seminar in Psychology (3)	Major/capstone
Elective (1)	Elective

BACHELOR'S DEGREE PROGRAMS CURRICULA

Minor in Psychology

The psychology minor complements the skills you gain in your major discipline by investigating the nature of the mind and behavior, including the biological basis of behavior, perception, memory and cognition; the influence of environmental and social forces on the individual, personality, and lifespan development and adjustment; research methods; and statistical analysis.

Courses in the Minor (15 Credits)

A minor in psychology requires the completion of 15 credits of coursework in psychology, as follows.

One of the following foundation courses (3):

- PSYC 100 Introduction to Psychology
- PSYC 300 Research Methods in Psychology
- STAT 200 Introduction to Statistics

One course from each of the following groupings:

- Biological (3): PSYC 301, PSYC 310, PSYC 341
- Social (3): PSYC 321, PSYC 351, PSYC 354
- Professional (3): PSYC 335, PSYC 353, PSYC 436

An additional PSYC course (3)

Courses already applied toward other degree requirements (e.g., major or general education) may not be applied toward the minor. At least 9 credits must be earned in upper-level courses (numbered 300 or above). Prerequisites apply for all courses.

For a listing of all the requirements for the bachelor's degree, refer to your major and pp. 40–42.

Public Safety Administration

You may seek either an academic major or minor in public safety administration.

Major in Public Safety Administration

A major in public safety administration builds a strong foundation of knowledge about emergency management systems at federal, state, and local levels to foster cross-agency collaboration. This program is ideal for those who have already worked in the public safety field in some capacity and want to further develop their critical thinking and leadership skills to solve current and future public safety issues in both the public and private sectors.

What You'll Learn

Through your coursework, you will learn how to

- Facilitate and support leadership in public safety administration to manage successful programs, including intergovernmental, interagency, and interdisciplinary outreach
- Use informed decision making, goal orientation, teamwork, ethical behavior, enhanced technology, and communications to ensure effective leadership in public safety administration
- Use clear and effective communication strategies and strong interpersonal, technological, and social media skills to help build collaborative partnerships
- Identify risks and design responses, plans, training, and exercises that coordinate public and private resources to effectively meet public safety goals
- Develop concise policy, plans, and procedures to support public safety administration

Degree Requirements

BS IN PUBLIC SAFETY ADMINISTRATION

	Credits
General Education Courses	41
Required Major Courses	30
Minor and Elective Courses	49
Total	120

REQUIRED MAJOR COURSES (30 CREDITS)

- PSAD 302 Introduction to Public Safety Administration (3)
- PSAD 304 Contemporary Public Safety Practices (3)
- PSAD 306 Public Safety Planning (3)
- PSAD 408 Public Safety Legal Issues and Public Policy (3)
- PSAD 410 Public Safety Research and Technology (3)
- PSAD 414 Public Safety Administration Ethics (3)
- PSAD 416 Public Safety Leadership (3)
- FINC 331 Finance for the Nonfinancial Manager (3)
- BMGT 317 Decision Making (3)
- PSAD 495 Public Safety Issues and Challenges (3)

BACHELOR'S DEGREE PROGRAMS CURRICULA

RELATED REQUIRED COURSE

Note: The following required course may be applied to general education or elective requirements.

IFSM 300 Information Systems in Organizations

Course Sequencing

The following table is designed to provide an optimal order for taking both required and recommended general education, major, and elective courses for this program. Your plan will be unique to you, based on your previous education. See pp. 40–42 for information on general education and overall requirements for completing a bachelor's degree. Contact an advisor if you have any questions about your academic advisement report.

Major and related requirements are listed in **bold**.

BS IN PUBLIC SAFETY ADMINISTRATION	
Recommended and Required Courses	Requirement(s) Fulfilled
LIBS 150 Introduction to Research (1)	General education/computing and research
PACE 111P Program and Career Exploration in Public Safety (3)	General education/computing and research
WRTG 111 Academic Writing I (3)	General education/communications
WRTG 112 Academic Writing II (3)	General education/communications
NUTR 100 Elements of Nutrition (3)	General education/biological and physical sciences
PSAD 302 Introduction to Public Safety Administration (3)	Major
SPCH 100 Foundations of Oral Communication (3)	General education/communications
MATH 105 Topics for Mathematical Literacy (3)	General education/mathematics
IFSM 300 Information Systems in Organizations (3)	Related and general education/computing and research
PSAD 304 Contemporary Public Safety Practices (3)	Major
HUMN 100 Introduction to Humanities (3)	General education/arts and humanities
BIOL 103 Introduction to Biology (4)	General education/biological and physical sciences
BEHS 103 Technology in Contemporary Society (3)	General education/behavioral and social sciences
ARTH 334 Understanding Movies (3)	General education/arts and humanities
Elective (3)	Elective
ECON 103 Economics in the Information Age (3)	General education/behavioral and social sciences
PSAD 306 Public Safety Planning (3)	Major

Elective (3)	Elective
PSAD 408 Public Safety Legal Issues and Public Policy (3)	Major
Elective (3)	Elective
PSAD 410 Public Safety Research and Technology (3)	Major
Elective (3)	Elective
PSAD 414 Public Safety Administration Ethics (3)	Major
WRTG 391 Advanced Research Writing (3)	General education/communications
Elective (3)	Elective
PSAD 416 Public Safety Leadership (3)	Major
Elective (3)	Elective
Elective (3)	Elective
FINC 331 Finance for the Nonfinancial Manager (3)	Major
Elective (3)	Elective
Elective (3)	Elective
BMGT 317 Decision Making (3)	Major
Elective (3)	Elective
Elective (3)	Elective
PSAD 495 Public Safety Issues and Challenges (3)	Major/capstone
Elective (3)	Elective
Elective (1)	Elective

Minor in Public Safety Administration

The public safety administration minor complements the skills you gain in your major discipline by providing a background in the field. The minor exposes you to the principles of strategic planning, risk management, public policy, and ethics as related to public safety administration.

Courses in the Minor (15 Credits)

A minor in public safety administration requires the completion of 15 credits of coursework in public safety administration. All PSAD courses apply. It is recommended that you take PSAD 302 as your first course in the minor (if you have not already applied the course toward other degree requirements).

BACHELOR'S DEGREE PROGRAMS

CURRICULA

Courses already applied toward other degree requirements (e.g., major or general education) may not be applied toward the minor. At least 9 credits must be earned in upper-level courses (numbered 300 or above). Prerequisites apply for all courses.

For a listing of all the requirements for the bachelor's degree, refer to your major and pp. 40–42.

Small Business Management and Entrepreneurship

You may seek an academic minor in small business management and entrepreneurship.

Minor in Small Business Management and Entrepreneurship

The small business management and entrepreneurship minor complements the skills you gain in your major discipline by helping you develop your ability to start and operate a successful small business and look for opportunities to create patterns of innovation within your organization. If you are planning to start or manage a small business, such as a family-owned business, a franchise, a virtual business, or a home enterprise, you'll find this minor helpful.

Courses in the Minor (15 Credits)

A minor in small business management and entrepreneurship requires the completion of the following courses:

BMGT 304	Managing E-Commerce in Organizations (3)
BMGT 330	Entrepreneurship and New Venture Planning (3)
BMGT 335	Small Business Management (3)
BMGT 364	Management and Organization Theory (3)
FINC 328	Small Business Finance (3)

Courses already applied toward other degree requirements (e.g., major or general education) may not be applied toward the minor. At least 9 credits must be earned in upper-level courses (numbered 300 or above). Prerequisites apply for all courses.

For a listing of all the requirements for the bachelor's degree, refer to your major and pp. 40–42.

Social Science

You may seek an academic major in social science.

Major in Social Science

In UMGC's bachelor's degree program in social science, you'll gain a breadth of knowledge through interdisciplinary study that encompasses perspectives from the fields of anthropology, behavioral sciences, gerontology, psychology, and sociology. You'll also have the opportunity to drill down and focus closely on one of these fields.

What You'll Learn

Through your coursework, you will learn how to

- Integrate theoretical perspectives and research findings in the social sciences by using quantitative and qualitative data and applying social science research methods
- Communicate effectively to a variety of audiences
- Explain how micro- and macro-level factors are linked in the social lives of individuals, communities, and societies
- Analyze complex social problems and work toward realistic solutions using awareness, acceptance, and appreciation of diversity, social factors, and global multicultural perspectives
- Recognize the ethical principles and standards for professional conduct that guide the work of social scientists
- Apply critical and creative thinking, information literacy, technology, and interdisciplinary perspectives to solve practical problems in the social sciences

Vertical Pathway

If you complete your undergraduate degree at UMGC with a major in social science, a vertical pathway between UMGC's undergraduate and graduate programs allows you to reduce your total coursework for the Master of Arts in Teaching by 12 credits (three courses), including the noncredit introductory course UCSP 615. Details are on p. 20.

BACHELOR'S DEGREE PROGRAMS CURRICULA

Degree Requirements

BS IN SOCIAL SCIENCE	
	Credits
General Education Courses	41
Required Major Courses	30
Minor and Elective Courses	49
Total	120

REQUIRED MAJOR COURSES (30 CREDITS)

Two introductory (100-level) social science courses (6)—
Chosen from the following:

ANTH 102	Introduction to Cultural Anthropology
GERO 100	Contemporary Issues in Aging
PSYC 100	Introduction to Psychology
SOCY 100	Introduction to Sociology

Required courses:

BEHS 210	Introduction to Social Sciences (3)
BEHS 220	Diversity Awareness (3)
BEHS 300	Research Methods in Social Sciences (3)
BEHS 495	Advanced Seminar in Social Sciences (3)

Upper-level ANTH, BEHS, GERO, PSYC, and SOCY courses (12)—
Focused study in anthropology, gerontology, psychology, or
sociology recommended, as follows:

Anthropology

ANTH 345	World Prehistory and Archaeology
ANTH 346	Anthropology of Language and Communication
ANTH 350	Health, Illness, and Healing
ANTH 351	Anthropology in Forensic Investigations

Gerontology

GERO 302	Health and Aging
GERO 311	Gender and Aging
GERO 427	Culture and Aging
GERO 320	Psychosocial Aspects of Aging

Psychology

PSYC 321	Social Psychology
PSYC 338	Psychology of Gender

PSYC 351	Lifespan Development
PSYC 354	Cross-Cultural Psychology

Sociology

SOCY 313	The Individual and Society
SOCY 325	The Sociology of Gender
SOCY 423	Race and Ethnicity: A Global Perspective
SOCY 350	Contemporary Social Problems

RELATED REQUIRED COURSE

Note: The following required course may be applied to general education or elective requirements.

STAT 200	Introduction to Statistics
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Course Sequencing

The following table is designed to provide an optimal order for taking both required and recommended general education, major, and elective courses for this program. Your plan will be unique to you, based on your previous education. See pp. 40–42 for information on general education and overall requirements for completing a bachelor's degree. Contact an advisor if you have any questions about your academic advisement report.

Major and related requirements are listed in **bold**.

BS IN SOCIAL SCIENCE	
Recommended and Required Courses	Requirement(s) Fulfilled
LIBS 150 Introduction to Research (1)	General education/computing and research
PACE 111S Program and Career Exploration in Health and Sciences (3)	General education/computing and research
WRITG 111 Academic Writing I (3)	General education/communications
CMST 301 Digital Media and Society (3)	General education/computing and research
NUTR 100 Elements of Nutrition (3)	General education/biological and physical sciences
ANTH 102 Introduction to Cultural Anthropology <i>or</i> GERO 100 Contemporary Issues in Aging <i>or</i> PSYC 100 Introduction to Psychology <i>or</i> SOCY 100 Introduction to Sociology (3)	Major
SPCH 100 Foundations of Oral Communication (3)	General education/communications
STAT 200 Introduction to Statistics (3)	Related and general education/mathematics
WRITG 112 Academic Writing II (3)	General education/communications

Continued

BACHELOR'S DEGREE PROGRAMS CURRICULA

Social Science, continued

SOCY 100 Introduction to Sociology or ANTH 102 Introduction to Cultural Anthropology or GERO 100 Contemporary Issues in Aging or PSYC 100 Introduction to Psychology (3)	Major
HUMN 100 Introduction to Humanities (3)	General education/arts and humanities
BIOL 103 Introduction to Biology (4)	General education/biological and physical sciences
BEHS 103 Technology in Contemporary Society (3)	General education/behavioral and social sciences
ARTH 334 Understanding Movies (3)	General education/arts and humanities
Elective (3)	Elective
ECON 103 Economics in the Information Age (3)	General education/behavioral and social sciences
BEHS 210 Introduction to Social Sciences (3)	Major
Elective (3)	Elective
BEHS 220 Diversity Awareness (3)	Major
Elective (3)	Elective
BEHS 300 Research Methods in Social Sciences (3)	Major
Elective (3)	Elective
ANTH 345 World Prehistory and Archaeology or GERO 302 Health and Aging or PSYC 321 Social Psychology or SOCY 313 The Individual and Society (3)	Major
WRTG 391 Advanced Research Writing (3)	General education/communications
Elective (3)	Elective
ANTH 346 Anthropology of Language and Communication or GERO 311 Gender and Aging or PSYC 338 Psychology of Gender or SOCY 325 The Sociology of Gender (3)	Major
Elective (3)	Elective
Elective (3)	Elective
ANTH 350 Health, Illness, and Healing or GERO 427 Culture and Aging or PSYC 351 Lifespan Development or SOCY 423 Race and Ethnicity: A Global Perspective (3)	Major
Elective (3)	Elective
Elective (3)	Elective

ANTH 351 Anthropology in Forensic Investigations or GERO 320 Psychosocial Aspects of Aging or PSYC 354 Cross-Cultural Psychology or SOCY 350 Contemporary Social Problems (3)	Major
Elective (3)	Elective
BEHS 495 Advanced Seminar in Social Sciences (3)	Major/capstone
Elective (1)	Elective

Sociology

You may seek an academic minor in sociology.

Minor in Sociology

The sociology minor complements the skills you gain in your major discipline by providing a study of contemporary sociological theory and research and applying it to social issues, including globalization, social inequality, diversity, healthcare, education, family, work, and religion.

Courses in the Minor (15 Credits)

A minor in sociology requires the completion of 15 credits of coursework in sociology. All SOCY courses apply. It is recommended that you take SOCY 100 as the first course in the minor (if you have not already applied the course toward other degree requirements).

Courses already applied toward other degree requirements (e.g., major or general education) may not be applied toward the minor. At least 9 credits must be earned in upper-level courses (numbered 300 or above). Prerequisites apply for all courses.

For a listing of all the requirements for the bachelor's degree, refer to your major and pp. 40–42.

BACHELOR'S DEGREE PROGRAMS

CURRICULA

Software Development and Security

You may seek an academic major in software development and security.

Major in Software Development and Security

The major in software development and security at UMGC is designed to teach you programming languages and best practices in software development that are in demand today in the workplace. Study also focuses on the critical element of software security, providing skills in how to find and address possible vulnerabilities.

UMGC was named a National Center of Academic Excellence in Cyber Defense Education by the National Security Agency and the Department of Homeland Security.

What You'll Learn

Through your coursework, you will learn how to

- Work individually or in a team to design, develop, implement, and test secure software using leading industry practices and standards to meet user requirements
- Plan, manage, document, and communicate all phases of a secure software development project as part of a software development team
- Use appropriate tools to assess and analyze existing applications for weaknesses and vulnerabilities and implement techniques for mitigating security threats and risks
- Identify and respond to threats and attacks to minimize risk and protect privacy

Degree Requirements

BS IN SOFTWARE DEVELOPMENT AND SECURITY

	Credits
General Education Courses	41
Required Major Courses	33
Minor and Elective Courses	46
Total	120

REQUIRED MAJOR COURSES (33 CREDITS)

CMIS 141	Introductory Programming (3)
CMIS 242	Intermediate Programming (3)
CMIS 320	Relational Database Concepts and Applications (3)
SDEV 300	Building Secure Python Applications (3)
SDEV 325	Detecting Software Vulnerabilities (3)
SDEV 350	Database Security (3)
SDEV 360	Secure Software Engineering (3)
SDEV 400	Secure Programming in the Cloud (3)
SDEV 425	Mitigating Software Vulnerabilities (3)
SDEV 460	Software Security Testing (3)
CMSC 495	Current Trends and Projects in Computer Science (3)

Course Sequencing

The following table is designed to provide an optimal order for taking both required and recommended general education, major, and elective courses for this program. Your plan will be unique to you, based on your previous education. See pp. 40–42 for information on general education and overall requirements for completing a bachelor's degree. Contact an advisor if you have any questions about your academic advisement report.

Major and related requirements are listed in **bold**.

BS IN SOFTWARE DEVELOPMENT AND SECURITY

Recommended and Required Courses	Requirement(s) Fulfilled
LIBS 150 Introduction to Research (1)	General education/computing and research
PACE 111T Program and Career Exploration in Technology (3)	General education/computing and research
WRWG 111 Academic Writing I (3)	General education/communications
CMIS 102 Introduction to Problem Solving and Algorithm Design (3)	Prerequisite and general education/computing and research
NUTR 100 Elements of Nutrition (3)	General education/biological and physical sciences
CMIS 141 Introductory Programming (3)	Major
SPCH 100 Foundations of Oral Communication (3)	General education/communications
MATH 107 College Algebra (3)	General education/mathematics
WRWG 112 Academic Writing II (3)	General education/communications
CMIS 242 Intermediate Programming (3)	Major
HIST 125 Technological Transformations (3)	General education/arts and humanities

Continued

BACHELOR'S DEGREE PROGRAMS CURRICULA

Software Development and Security, continued

BIOL 103 Introduction to Biology (4)	General education/biological and physical sciences
BEHS 103 Technology in Contemporary Society (3)	General education/behavioral and social sciences
ARTH 334 Understanding Movies (3)	General education/arts and humanities
Elective (3)	Elective
ECON 103 Economics in the Information Age (3)	General education/behavioral and social sciences
CMIS 320 Relational Database Concepts and Applications (3)	Major
Elective (3)	Elective
SDEV 300 Building Secure Python Applications (3)	Major
Elective (3)	Elective
SDEV 325 Detecting Software Vulnerabilities (3)	Major
Elective (3)	Elective
SDEV 350 Database Security (3)	Major
WR TG 393 Advanced Technical Writing (3)	General education/communications
Elective (3)	Elective
SDEV 360 Secure Software Engineering (3)	Major
Elective (3)	Elective
Elective (3)	Elective
SDEV 400 Secure Programming in the Cloud (3)	Major
Elective (3)	Elective
Elective (3)	Elective
SDEV 425 Mitigating Software Vulnerabilities (3)	Major
Elective (3)	Elective
Elective (3)	Elective
SDEV 460 Software Security Testing (3)	Major
Elective (3)	Elective
CMSC 495 Current Trends and Projects in Computer Science (3)	Major/capstone
Elective (1)	Elective

Honor Society

Information on eligibility for membership in the UMGC chapter of Upsilon Pi Epsilon, the international honor society for the computing and information disciplines, is available on p. 292.

Speech Communication

You may seek an academic minor in speech communication if you are not completing a major in communication studies.

Minor in Speech Communication

The minor in speech communication complements the skills you gain in your major discipline by developing communication skills, particularly oral communication, as well as providing a greater understanding of human interaction in a variety of personal and professional contexts.

Courses in the Minor (15 Credits)

A minor in speech communication requires the completion of 15 credits of coursework in speech communication. All SPCH and COMM courses apply, but at least 9 credits must be earned in SPCH courses. It is recommended that you take COMM 300 and SPCH 100 as the first courses for the minor (if you have not already applied the courses toward other degree requirements).

Courses already applied toward other degree requirements (e.g., major or general education) may not be applied toward the minor. At least 9 credits must be earned in upper-level courses (numbered 300 or above). Prerequisites apply for all courses.

For a listing of all the requirements for the bachelor's degree, refer to your major and pp. 40–42.

BACHELOR'S DEGREE PROGRAMS

CURRICULA

Terrorism and Critical Infrastructure

You may seek an academic minor in terrorism and critical infrastructure.

Minor in Terrorism and Critical Infrastructure

The terrorism and critical infrastructure minor complements the knowledge and skills you develop in your major discipline by offering you an understanding of the principle components of protecting both public and private critical infrastructure from acts of terrorism.

Courses in the Minor (15 Credits)

A minor in terrorism and critical infrastructure requires the completion of 15 credits of coursework focusing on terrorism and critical infrastructure, chosen from the following courses:

CCJS 341	Criminal Investigation
CCJS 390	Cybercrime and Security
GVPT 406	Global Terrorism
GVPT 407	State Terrorism
GVPT 408	Counterterrorism
GVPT 409	Terrorism, Antiterrorism, and Homeland Security
HIST 392	History of the Contemporary Middle East
HMLS 302	Introduction to Homeland Security
HMLS 406	Legal and Political Issues of Homeland Security
HMLS 408	Infrastructure in Homeland Security

Courses already applied toward other degree requirements (e.g., major or general education) may not be applied toward the minor. At least 9 credits must be earned in upper-level courses (numbered 300 or above). Prerequisites apply for all courses.

For a listing of all the requirements for the bachelor's degree, refer to your major and pp. 40–42.

Women's Studies

You may seek an academic minor in women's studies.

Minor in Women's Studies

The women's studies minor complements the skills you gain in your major discipline by providing an interdisciplinary study of the history, status, and experiences of women.

Courses in the Minor (15 Credits)

A minor in women's studies requires the completion of 15 credits of coursework in women's studies, chosen from the following courses:

Any WMST courses

BEHS 220	Diversity Awareness
BEHS 343	Parenting Today
BEHS 453	Domestic Violence
ENGL 250	Introduction to Women's Literature
GERO 311	Gender and Aging
HIST 377	U.S. Women's History: 1870 to 2000
PSYC 338	Psychology of Gender
SOCY 325	The Sociology of Gender
SOCY 443	Sociology of the Family
SOCY 462	Women in the Military
SPCH 324	Communication and Gender

It is recommended that you take WMST 200 as the first course for the minor (if you have not already applied the course toward other degree requirements).

Courses already applied toward other degree requirements (e.g., major or general education) may not be applied toward the minor. At least 9 credits must be earned in upper-level courses (numbered 300 or above). Prerequisites apply for all courses.

For a listing of all the requirements for the bachelor's degree, refer to your major and pp. 40–42.

MASTER'S DEGREE PROGRAMS

DEGREE REQUIREMENTS

At the master's degree level, UMGC offers the Master of Arts in Teaching (MAT), Master of Business Administration (MBA), Master of Distance Education (MDE), Master of Education (MEd), and Master of Science (MS).

Expectations

Each UMGC master's degree incorporates program-specific and core competencies. The following essential core competencies are emphasized across all programs:

- Effective writing and oral communication
- Teamwork/collaboration/leadership
- Quantitative reasoning
- Critical analysis, critical thinking, and problem solving

UMGC conducts learning outcomes assessments to measure and improve your learning in these areas as well as in specific disciplinary knowledge and skills.

Requirements

Continuous Enrollment

In general, the UMGC degree requirements that apply to you are those that were in effect when you completed the first credit-bearing course in a given program at UMGC. If you cease to be continuously enrolled, the program requirements that apply to you are those in effect at UMGC when you return to UMGC and enroll in a credit-bearing course for the program you wish to pursue at that time.

To be considered continuously enrolled, you must have had no more than two sequential years of nonenrollment. After two years of nonenrollment, you must apply for admission to resume enrollment.

If you change your degree program while continuously enrolled, then the program requirements that apply to you are those in effect at the time you enroll in the first required course for that program. Previously completed coursework may not apply to the new requirements.

Information about the catalog year that applies to you is provided in the MyUMGC student portal.

The following requirements for the master's degree are applicable to students who begin continuous enrollment on or after August 1, 2020.

Overall Requirements

More is expected at the graduate level than what is normally required at the undergraduate level. In addition, you usually must complete special requirements at the end of your graduate program. UMGC's master's degree programs require you to complete an integrative end-of-program capstone course in which you must demonstrate mastery of content covered throughout the program.

All master's degrees require completion of at least 30 credits, with specific requirements listed on the next pages.

Initial Requirement

Most master's degrees require UCSP 615 Orientation to Graduate Studies at UMGC, which must be taken within the first 6 credits of study. For master's degrees that require foundation courses CBR 600, DCL 600, or PRO 600, the required foundation course must be taken first.

Good Academic Standing

In all programs, you must maintain a term and cumulative grade point average (GPA) of 3.0 to remain in good academic standing; in some, you must also earn a grade of B or higher in each class to progress to the next class. Academic progress is assessed at the end of each term. Other requirements—such as time limits for degree completion—also apply; details are provided in the following section and in the Criteria for Program Progression section of each applicable program's description.

Time Limits

All requirements established for the completion of a master's degree listed in this publication must be fulfilled within five consecutive years. The time limit is calculated from the term in which you successfully complete the first credit course that applies to the program. It does not include the introductory courses DCL 600, CBR 600, and PRO 600 but does include courses transferred from other institutions and courses transferred from UMGC undergraduate programs as part of an accelerated pathway.

MASTER'S DEGREE PROGRAMS

DEGREE REQUIREMENTS

Second Master's Degree

If you have already received a master's degree from UMGC, you can broaden your education by earning a second master's degree in a different discipline.

If you have earned a master's degree from UMGC and want to pursue an additional master's degree at UMGC, you may not apply coursework twice, i.e., double count, or repeat courses to fulfill the requirements of the additional credential. On a case-by-case basis, UMGC may consider limited substitutions for coursework that is required for more than one master's degree to allow you to complete a second master's degree, but if this is not possible, you will need to choose an alternate program if you wish to complete another credential at UMGC.

Before beginning work toward or registering for a second master's degree, consult an academic advisor. Advisors will be glad to explain the requirements and situations that require department approval, including those for completing an MS in Management or in Information Technology in a second specialization.

MASTER'S DEGREE PROGRAMS

CURRICULA

Accounting and Financial Management

You may earn a Master of Science in Accounting and Financial Management.

Master of Science in Accounting and Financial Management

The graduate program in accounting and financial management can help you move toward organizational leadership positions. Ideal for midcareer professionals, this program can give you the skills to make high-level decisions that can impact your organization's current operations and financial future.

What You'll Learn

Through your coursework, you will learn how to

- Manage your organization's current financial operations (cash, inventory, accounts receivable, payables, short-term loans, etc.)
- Make long-term financial decisions (evaluating and selecting capital investments, financing capital requirements, taking a company public, navigating mergers and acquisitions, and assessing bankruptcy/liquidation)
- Manage costs and mitigate risks
- Evaluate investments using industry software
- Perform financial analysis and modeling
- Make strategic management decisions and solve operational problems
- Analyze financial reporting and its effect on financial markets
- Incorporate international environments and opportunities into your planning
- Handle ethical problems that arise in your field
- Assess the state of corporate governance and internal controls in your organization
- Use case studies of real organizations facing financial challenges to analyze their situations and propose a course of action
- Examine the sources of the 2008 global financial crisis and analyze how organizations acted to moderate its effects or recover
- Play the role of a new chief financial officer tasked with performing a comprehensive analysis of a new S&P 500 company
- Present a paper to a chief executive officer

INDUSTRY CERTIFICATION

This program is designed to help prepare you for the following certification exams, listed in alphabetical order:

Accounting Certification

- Certified Fraud Examiner (CFE)
- Certified Government Auditing Professional (CGAP)
- Certified Internal Auditor (CIA)
- Certified Public Accountant (CPA)*
- Chartered Global Management Accountant (CGMA)
- Enrolled Agent (EA)

Financial Management Certification

- Certified Economic Policy Analyst (CEPA)
- Certified Financial Examiner (CFE)
- Certified Financial Services Auditor (CFSA)
- Certified Government Financial Manager (CGFM)
- Certified Healthcare Financial Professional (CHFP)
- Certified in Financial Forensics (CFF)
- Certified Risk Professional (CRP)
- Certified Treasury Professional (CTP)
- Certified Valuation Analyst (CVA)
- Chartered Asset Manager (CAM)
- Chartered Economist (ChE)
- Chartered Financial Analyst (CFA)
- Chartered Market Analyst (CMA)
- Chartered Portfolio Manager (CPM)
- Chartered Trust and Estate Planner (CTEP)
- Chartered Wealth Manager (CWM)
- Financial Risk Manager (FRM)
- Master Analyst in Financial Forensics (MAFF)
- Master Financial Manager (MFM)
- Master Financial Professional (MFP)
- Registered Business Analyst (RBA)

Other Certification

- Accredited Automated Clearing House Professional (AAP)

* Requirements for CPA certification vary from state to state. See p. 320 or umgc.edu/professional-licensure for more information.

MASTER'S DEGREE PROGRAMS CURRICULA

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Academic Preparation

Before enrolling in any graduate accounting course, you must have either

- Completed 15 credits of undergraduate accounting coursework, with a grade of C or better in each course. Upon submission of an official transcript, you may be accepted into the degree program with fewer than the required 15 credits of undergraduate accounting coursework, but you must complete that coursework before enrolling in your first graduate accounting course.
- Earned a Certified Public Accountant (CPA) license as determined by a State Board of Accountancy. Upon submission of evidence and verification of your having earned a CPA license, you may enroll in a graduate accounting course.

Preparation Recommended for Success

EXPECTATIONS

You are expected to have some familiarity with Microsoft Excel.

RECOMMENDATIONS

If you have not recently graduated with an undergraduate degree in accounting, finance, or financial management, we highly recommend that you take the noncredit course UCSP 620 before ACCT 610 and MGMT 640. Taking UCSP 605 is recommended to help improve writing skills.

Vertical Pathway

If you completed your undergraduate degree at UMGC with coursework in accounting, a vertical pathway between UMGC's undergraduate and graduate degree programs in that field allows you to reduce your total coursework for a related graduate degree by up to 6 credits (two courses). See p. 19 for details.

Degree Requirements

MS IN ACCOUNTING AND FINANCIAL MANAGEMENT

	Credits
Accounting Courses	15
Required Financial Management Courses	18
Required Capstone Course	3
Total	36

INITIAL REQUIREMENT

(to be taken within the first 6 credits of study)

UCSP 615 Orientation to Graduate Studies at UMGC (0)

ACCOUNTING COURSES

Complete the following three courses:

ACCT 610 Financial Accounting (3)

ACCT 613 Federal Income Taxation (3)

ACCT 628 Auditing (3)

Take two of the following for a total of 6 credits:

ACCT 625 Government and Not-for-Profit Accounting (3)

ACCT 630 Fraud Examination (3)

ACCT 635 Accounting Ethics (3)

ACCT 640 International Accounting (3)

REQUIRED FINANCIAL MANAGEMENT COURSES

MGMT 640 Financial Decision Making for Managers (3)

FIN 610 Financial Management in Organizations (3)

FIN 620 Long-Term Financial Management (3)

FIN 630 Investment Valuation (3)

FIN 645 Behavioral Finance (3)

FIN 660 Strategic Financial Management (3)

REQUIRED CAPSTONE COURSE

MSAF 670 Accounting and Financial Management Capstone (3)

COURSE SEQUENCING

- ACCT 610 is prerequisite to all graduate accounting courses.
- ACCT 628 should be taken before ACCT 630.
- MGMT 640 is prerequisite to FIN 610.
- FIN 610 is prerequisite to all other FIN courses.
- FIN 620 and FIN 630 are prerequisite to FIN 660.
- FIN 630 is prerequisite to FIN 645.
- FIN 645 is the only course that can be taken simultaneously with MSAF 670.

MASTER'S DEGREE PROGRAMS

CURRICULA

Accounting and Information Systems

You may earn a Master of Science in Accounting and Information Systems.

Master of Science in Accounting and Information Systems

Using a collaborative cross-disciplinary approach to embrace the digital disruption facing today's business organizations, the graduate program in accounting and information systems can help you develop synergistic knowledge and cutting-edge technology skill sets in cyber accounting, data analytics, and information systems. Vast growth opportunities exist in accounting information systems security, cyber accounting risk management, fraud and forensic accounting, and information technology auditing, offering you a career that is both stable and flexible. No matter what stage your career is at, this program can help you transition into accounting positions with its heavy emphasis on accounting information systems, cyber accounting risks, data analytics, and cyber forensics in accounting.

What You'll Learn

Through your coursework, you will learn how to

- Design and build an accounting information system
- Manage the financial aspects of an accounting information system
- Apply the principles of information systems management and integration to private-sector organizations served by accounting professionals
- Apply administrative and technical security controls to prevent, detect, respond to, and recover from cyberattacks on accounting data
- Apply cyber accounting risk management techniques using the AICPA Cybersecurity Risk Management Reporting Framework
- Integrate tools, techniques, and technologies used in cyber-forensic investigations, data analytics, and litigation involving accounting information
- Conduct a fraud investigation using tools and techniques recommended by the Association of Certified Fraud Examiners

- Prepare, perform, and analyze financial statements and reports for small and large entities
- Audit financial statements and information systems using data analytic and visualization software, including ACL, IDEA, and Tableau
- Apply information assurance techniques such as testing, validation, verification, and certification within given information security evaluation contexts

INDUSTRY CERTIFICATION

This program is designed to help prepare you for the following certification exams, listed in alphabetical order:

Accounting Certification

- Certified Fraud Examiner (CFE)
- Certified in Financial Forensics (CFF)
- Certified Information Technology Professional (CITP)
- Certified Public Accountant (CPA)*

Information Systems Certification

- Certification in Control Self-Assessment (CCSA)
- Certified Information Security Manager (CISM)
- Certified Information Systems Auditor (CISA)
- Certified in Risk and Information Systems Control (CRISC)

Academic Preparation

Before enrolling in any graduate accounting course, you must have either

- Completed 15 credits of undergraduate accounting coursework, with a grade of C or better in each course. Upon submission of an official transcript, you may be accepted into the degree program with fewer than the required 15 credits of undergraduate accounting coursework, but you must complete that coursework before enrolling in your first graduate accounting course.
- Earned a Certified Public Accountant (CPA) license as determined by a State Board of Accountancy. Upon submission of evidence and verification of your having earned a CPA license, you may enroll in a graduate accounting course.

* Requirements for CPA certification vary from state to state. See p. 320 or umgc.edu/professional-licensure for more information.

MASTER'S DEGREE PROGRAMS CURRICULA

Preparation Recommended for Success

EXPECTATIONS

You are expected to have familiarity with Microsoft Excel.

RECOMMENDATIONS

If you lack a recent background in accounting, you should take UCSP 620 before ACCT 610. Taking UCSP 605 is recommended to help improve writing skills.

Vertical Pathway

If you completed your undergraduate degree at UMGC with coursework in accounting, a vertical pathway between UMGC's undergraduate and graduate degree programs in that field allows you to reduce your total coursework for a related graduate degree by up to 6 credits (two courses). See p. 19 for details.

Degree Requirements

MS IN ACCOUNTING AND INFORMATION SYSTEMS

	Credits
Required Accounting Courses	12
Required Information Systems Security Course	3
Required Integrated Accounting and Information Systems Security Courses	12
Required Capstone Course	3
Total	30

INITIAL REQUIREMENT

(to be taken within the first 6 credits of study)

UCSP 615 Orientation to Graduate Studies at UMGC (0)

REQUIRED ACCOUNTING COURSES

ACCT 610 Financial Accounting (3)

ACCT 628 Auditing (3)

ACCT 630 Fraud Examination (3)

ACCT 635 Accounting Ethics (3)

REQUIRED INFORMATION SYSTEMS SECURITY COURSE

INFA 610 Foundations of Information Security and Assurance (3)

REQUIRED INTEGRATED ACCOUNTING AND INFORMATION SYSTEMS SECURITY COURSES

ACCT 618 Accounting Information Systems (3)

ACCT 620 Cyber Accounting: Management and Compliance (3)

ACCT 645 Cyber Forensics in Accounting (3)

ACCT 660 Information Technology Auditing (3)

REQUIRED CAPSTONE COURSE

ACCT 670 Capstone in Cyber Accounting: Risk Management (3)

ALTERNATE COURSES

If you have already earned 3 undergraduate credits in accounting ethics, you may replace ACCT 635 with INFA 660 The Law, Regulation, and Ethics of Information Assurance (3).

COURSE SEQUENCING

- ACCT 610 is prerequisite to all graduate accounting courses.
- ACCT 618 is prerequisite to ACCT 620.
- ACCT 628 should be completed before ACCT 630.
- ACCT 618, ACCT 628, and ACCT 630 are prerequisite to ACCT 645.
- ACCT 618, ACCT 628, ACCT 630, and INFA 610 are prerequisite to ACCT 660.
- You must complete all program coursework except ACCT 635 or INFA 660 before enrolling in ACCT 670.

Biotechnology

You may earn a Master of Science in Biotechnology, with a specialization in any one of the following areas:

- Bioinformatics
- Biosecurity and Biodefense
- Biotechnology Management
- Biotechnology Regulatory Affairs

Program Recognition

UMGC's MS in Biotechnology has been designated a Professional Science Master's degree program through the Council of Graduate Schools.

MASTER'S DEGREE PROGRAMS CURRICULA

Master of Science in Biotechnology: Bioinformatics Specialization

Bioinformatics blends biology, computer science, and mathematics to analyze the massive quantities of big data generated by modern biology. Hidden in this data might be the next blockbuster cancer therapy, the definitive proof that a certain gene is responsible for a disease, or the information needed to replicate a crucial biological process—and you could be on the team that discovers it.

A master's degree in biotechnology with a specialization in bioinformatics helps prepare you to become a qualified bioinformatics professional for public- or private-sector organizations. You'll gain cutting-edge knowledge, and you'll also develop experience in the field, which can give you an advantage in the job market.

What You'll Learn

Through your coursework, you will learn how to

- Code in Python and Java
- Analyze big data, next-generation sequencing data, and scientific data
- Perform sequence alignments and phylogenetic analyses
- Use biostatistics, databases and data structures, algorithms, and mathematical modeling

Academic Preparation

A molecular biology background is required for this program. Upon submission of an official transcript, you may be accepted into the degree program without a molecular biology background, but you must take either a college-level molecular biology course or BIOT 601 Introduction to Molecular Biology before the required program core.

Preparation Recommended for Success

EXPECTATIONS

You are expected to have completed undergraduate coursework in molecular biology, programming, and statistics. This background may be acquired through preparatory coursework, listed below.

REQUIREMENTS/RECOMMENDATIONS

If you lack previous coursework in molecular biology, you must take BIOT 601, which may be taken concurrently with BIOT 640. If you have no prior coursework in software programming, you must take UCSP 635 and UCSP 636 (or equivalent) before taking BIFS 617. If you have no prior coursework in statistics, you must take STAT 200 (or equivalent) before taking BIFS 613. Taking UCSP 605 is recommended to help improve writing skills.

Degree Requirements

MS IN BIOTECHNOLOGY: BIOINFORMATICS SPECIALIZATION

	Credits
Required Core Courses	12
Required Specialization Courses	21
Required Capstone Course	3
Total	36

INITIAL REQUIREMENT

(to be taken within the first 6 credits of study)

UCSP 615 Orientation to Graduate Studies at UMGC (0)

REQUIRED CORE COURSES

BIOT 640 Societal Issues in Biotechnology (3)

BIOT 630 Introduction to Bioinformatics (3)

BIOT 645 The Business of Biotechnology (3)

BIOT 643 Techniques of Biotechnology (3)

REQUIRED SPECIALIZATION COURSES

BIFS 613 Statistical Processes for Biotechnology (3)

BIFS 614 Data Structures and Algorithms (3)

BIFS 617 Advanced Bioinformatics (3)

DBST 651 Relational Database Systems (3)

BIFS 618 Java for Biotechnology Applications (3)

DBST 652 Advanced Relational/Object-Relational Database Systems (3)

BIFS 619 Systems-Level Approaches in Bioinformatics (3)

REQUIRED CAPSTONE COURSE

BIOT 670 Capstone in Biotechnology (3)

COURSE SEQUENCING

- BIOT 601, if required, may be taken concurrently with BIOT 640.
- BIOT 640 must be taken as the first program course.
- You must complete all core courses with the BIOT designator in the order listed before starting any specialization coursework.
- STAT 200 or an equivalent statistics course (with a minimum grade of C for an undergraduate course, B for a graduate course) is prerequisite to BIFS 613.

MASTER'S DEGREE PROGRAMS

CURRICULA

- UCSP 635 and UCSP 636 or an equivalent programming course (with a minimum grade of C for an undergraduate course, B for a graduate course) is prerequisite to BIFS 617.
- BIFS 617 is prerequisite to BIFS 618 and BIFS 619.
- BIOT 670 can be taken only after you complete 30 credits of coursework in the biotechnology program. The course is not offered in summer. Availability of the capstone course is provided online at umgc.edu/schedule.

Master of Science in Biotechnology: Biosecurity and Biodefense Specialization

The potential dangers of biowarfare have created a new demand for professionals who can use technology to detect, analyze, and respond to biosecurity threats. A master's degree in biotechnology with a specialization in biosecurity and biodefense can help prepare you to meet that demand head-on.

In this specialization, you'll study the microbiology and epidemiology of biological agents that are potential threats, identify and propose countermeasures, and develop expertise in response and recovery strategies as well as policies related to biodefense and biosecurity.

What You'll Learn

Through your coursework, you will learn how to

- Develop preparedness and response strategies for bioterrorism simulations
- Analyze cases of real epidemics, biowarfare, and bioethical research problems
- Communicate current trends in biodefense policies, laws, and best practices for global interagency responses
- Develop advanced project management skills to lead teams
- Perform risk assessments and potential impact analyses and select treatments to handle adverse events

Academic Preparation

A molecular biology background is required for this program. Upon submission of an official transcript, you may be accepted into the degree program without a molecular biology background, but you must take either a college-level molecular biology course or BIOT 601 Introduction to Molecular Biology before the required program core.

Preparation Recommended for Success

EXPECTATIONS

You are expected to have completed undergraduate coursework in molecular biology. This background may be acquired through preparatory coursework, listed below.

REQUIREMENTS/RECOMMENDATIONS

If you lack previous coursework in molecular biology, you must take BIOT 601, which may be taken concurrently with BIOT 640. Taking UCSP 605 is recommended to help improve writing skills.

Academic Relationship

If you are certified as a Project Management Professional by the Project Management Institute and begin study for the master's degree within five years of earning certification, you may receive credit for PMAN 634 Foundations of Project Management. Advisors can provide more information.

Degree Requirements

MS IN BIOTECHNOLOGY: BIOSECURITY AND BIODEFENSE SPECIALIZATION

	Credits
Required Core Courses	15
Required Specialization Courses	18
Required Capstone Course	3
Total	36

INITIAL REQUIREMENT

(to be taken within the first 6 credits of study)

UCSP 615 Orientation to Graduate Studies at UMGC (0)

REQUIRED CORE COURSES

BIOT 640 Societal Issues in Biotechnology (3)

BIOT 630 Introduction to Bioinformatics (3)

BIOT 645 The Business of Biotechnology (3)

BIOT 643 Techniques of Biotechnology (3)

PMAN 634 Foundations of Project Management (3)

MASTER'S DEGREE PROGRAMS CURRICULA

REQUIRED SPECIALIZATION COURSES

- BSBD 640 Agents of Bioterrorism (3)
- BSBD 641 Biosecurity and Bioterrorism (3)
- HSMN 630 Resilience Planning and Preparedness for Disaster Response and Recovery (3)
- BSBD 642 Advanced Biosecurity and Bioterrorism (3)
- BSBD 643 Strategies for Interagency Cooperation, Verification, and Global Countermeasures in Biodefense (6)

REQUIRED CAPSTONE COURSE

- BIOT 670 Capstone in Biotechnology (3)

COURSE SEQUENCING

- BIOT 601, if required, may be taken concurrently with BIOT 640.
- BIOT 640 must be taken as the first program course.
- You must complete all core courses with the BIOT designator in the order listed before starting any specialization coursework.
- BIOT 670 can be taken only after you complete 30 credits of coursework in the biotechnology program. The course is not offered in summer. Availability of the capstone course is provided online at umgc.edu/schedule.

Master of Science in Biotechnology: Biotechnology Management Specialization

In the biotechnology management specialization, you'll learn how to evaluate, launch, and manage biotechnology ventures, from life-saving biopharmaceuticals to environment-friendly biofuels. The program will help you build a powerful skill set in both business and biology to become a sought-after professional or a successful entrepreneur.

What You'll Learn

Through your coursework, you will learn how to

- Assess your organization's needs for capital, personnel, technology, and marketing
- Evaluate forecasts, cost effectiveness, and performance of biotech projects
- Weigh the advantages and disadvantages of forming international ventures
- Interpret bioinformatic data and understand the latest technical advances in biotechnology

- Comprehend the economics of bioprocessing, regulatory affairs, and different global business models used in biotechnology
- Implement advanced project management skills to lead a successful team

Academic Preparation

A molecular biology background is required for this program. Upon submission of an official transcript, you may be accepted into the degree program without a molecular biology background, but you must take either a college-level molecular biology course or BIOT 601 Introduction to Molecular Biology before the required program core.

Preparation Recommended for Success

EXPECTATIONS

You are expected to have completed undergraduate coursework in molecular biology. This background may be acquired through preparatory coursework, listed below.

REQUIREMENTS/RECOMMENDATIONS

If you lack previous coursework in molecular biology, you must take BIOT 601, which may be taken concurrently with BIOT 640. Taking UCSP 605 is recommended to help improve writing skills.

Academic Relationship

If you are certified as a Project Management Professional by the Project Management Institute and begin study for the master's degree within five years of earning certification, you may receive credit for PMAN 634 Foundations of Project Management. Advisors can provide more information.

Degree Requirements

MS IN BIOTECHNOLOGY: BIOTECHNOLOGY MANAGEMENT SPECIALIZATION

	Credits
Required Core Courses	15
Required Specialization Courses	18
Required Capstone Course	3
Total	36

MASTER'S DEGREE PROGRAMS CURRICULA

INITIAL REQUIREMENT

(to be taken within the first 6 credits of study)

UCSP 615 Orientation to Graduate Studies at UMGC (0)

REQUIRED CORE COURSES

BIOT 640	Societal Issues in Biotechnology (3)
BIOT 630	Introduction to Bioinformatics (3)
BIOT 645	The Business of Biotechnology (3)
BIOT 643	Techniques of Biotechnology (3)
PMAN 634	Foundations of Project Management (3)

REQUIRED SPECIALIZATION COURSES

BTMN 632	Commercializing Biotechnology in Early-Stage Ventures (3)
BTMN 634	Selection and Evaluation of Biotechnology Projects (3)
BTMN 636	Biotechnology and the Regulatory Environment (3)
ISAS 610	Information Systems and Integration (3)
MRKT 600	Marketing Management (3)
MGMT 640	Financial Decision Making (3)

REQUIRED CAPSTONE COURSE

BIOT 670 Capstone in Biotechnology (3)

COURSE SEQUENCING

- BIOT 601, if required, may be taken concurrently with BIOT 640.
- BIOT 640 must be taken as the first program course.
- You must complete all core courses with the BIOT designator in the order listed before starting any specialization coursework.
- BIOT 670 can be taken only after you complete 30 credits of coursework in the biotechnology program. The course is not offered in summer. Availability of the capstone course is provided online at umgc.edu/schedule.

Master of Science in Biotechnology: Biotechnology Regulatory Affairs Specialization

In the specialization in biotechnology regulatory affairs, you'll develop expertise in the life cycle of biotechnology products and learn how to help businesses and regulators work together for safety and quality. This rare program, one of only a few in the nation, will give you a unique credential to help you stand out from the crowd.

The biotechnology regulatory affairs specialization could prepare you to help bring a new medical technology to market, bring a life-saving drug to a new country, manage a top-quality research laboratory, or work for a regulating agency to improve drug and device safety for millions of people. You'll build strong skill sets in molecular biology, business, and policy to make yourself an indispensable asset to the public and private sectors of the biotech industry.

What You'll Learn

Through your coursework, you will learn how to

- Develop a management plan for a clinical trial
- Assemble packages for an investigational new drug, a new drug application, a new device exemption, or a Biological License Application
- Demonstrate your knowledge of Federal Drug Administration rules, including Title 21 of the *Code of Federal Regulations*
- Navigate the policies and procedures for gaining marketing approval for a medical product within the United States, European Union, Japan, Canada, Brazil, India, and China
- Comprehend the economics of bioprocessing, regulatory affairs, and global business models used in biotechnology
- Implement advanced project management skills to lead a successful team

INDUSTRY CERTIFICATION

This program can help prepare you for the Regulatory Affairs Certification exam.

Academic Preparation

A molecular biology background is required for this program. Upon submission of an official transcript, you may be accepted into the degree program without a molecular biology background, but you must take either a college-level molecular biology course or BIOT 601 Introduction to Molecular Biology before the required program core.

Preparation Recommended for Success

EXPECTATIONS

You are expected to have completed undergraduate coursework in molecular biology. This background may be acquired through preparatory coursework, listed below.

REQUIREMENTS/RECOMMENDATIONS

If you lack previous coursework in molecular biology, you must take BIOT 601, which may be taken concurrently with BIOT 640. Taking UCSP 605 is recommended to help improve writing skills.

MASTER'S DEGREE PROGRAMS

CURRICULA

Academic Relationship

If you are certified as a Project Management Professional by the Project Management Institute and begin study for the master's degree within five years of earning certification, you may receive credit for PMAN 634 Foundations of Project Management. Advisors can provide more information.

Degree Requirements

MS IN BIOTECHNOLOGY: BIOTECHNOLOGY REGULATORY AFFAIRS SPECIALIZATION

	Credits
Required Core Courses	15
Required Specialization Courses	18
Required Capstone Course	3
Total	36

INITIAL REQUIREMENT

(to be taken within the first 6 credits of study)

UCSP 615 Orientation to Graduate Studies at UMGC (0)

REQUIRED CORE COURSES

BIOT 640	Societal Issues in Biotechnology (3)
BIOT 630	Introduction to Bioinformatics (3)
BIOT 645	The Business of Biotechnology (3)
BIOT 643	Techniques of Biotechnology (3)
PMAN 634	Foundations of Project Management (3)

REQUIRED SPECIALIZATION COURSES

BTMN 636	Biotechnology and the Regulatory Environment (3)
BTRA 640	Preclinical and Clinical Research Design (3)
BTRA 641	Product Life-Cycle Approval, Production, and Marketing for Devices and Drugs (3)
BTRA 642	Global Biotechnology Business Issues (3)
BTRA 643	Practical Applications of Biotech Regulatory Affairs (6)

REQUIRED CAPSTONE COURSE

BIOT 670	Capstone in Biotechnology (3)
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COURSE SEQUENCING

- BIOT 601, if required, may be taken concurrently with BIOT 640.
- BIOT 640 must be taken as the first program course.
- You must complete all core courses with the BIOT designator in the order listed before starting any specialization coursework.
- BIOT 670 can be taken only after you complete 30 credits of coursework in the biotechnology program. The course is not offered in summer. Availability of the capstone course is provided online at umgc.edu/schedule.

Business Administration

You may earn a Master of Business Administration.

Master of Business Administration

The MBA program can help you gain the skills and abilities desired by today's employers and learn how to strategically manage an organization for growth and success. In this program, you can develop and advance your competencies in finance, marketing, human resources, strategy, and leadership. You'll be able to apply your learning from multiple disciplines and specializations to real-life business problems.

What You'll Learn

Through your coursework, you'll learn how to

- Create and implement a personal leadership development plan
- Foster mutual respect, trust, and high standards of ethics, performance, and teamwork
- Assess and manage critical knowledge and skill gaps related to core organizational functions and managerial responsibilities
- Complete a comprehensive analysis of the costs of operations, pricing options, financing, product mix, and distribution channels
- Evaluate your cultural intelligence, ethical values, and skills in decision making, and implement specific actions to leverage your strengths and further develop areas of relative weakness
- Evaluate your organization's policies for managing legal and ethical risks, with a focus on contracts, agency, and tort law
- Develop a marketing plan for a new product or service in both domestic and international markets
- Prepare a project management plan for an initiative in a new international location that presents business, language, cultural, legal, and other challenges for your organization
- Develop a comprehensive strategy for expanding your organization's products or services in a selected country

MASTER'S DEGREE PROGRAMS CURRICULA

Preparation Recommended for Success

RECOMMENDATIONS

If you need to improve your computing skills, you should take the noncredit course ASC 605. Taking ASC 601 is recommended to improve writing and analytical skills.

Degree Requirements

MBA	
	Credits
Required Foundation Course	6
Required Core Courses	30
Total	36

REQUIRED FOUNDATION COURSE

PRO 600 Communicating, Problem Solving, and Leading in Professional Fields (6)

REQUIRED CORE COURSES

MBA 610 Leading Organizations and People (6)
MBA 620 Financial Decision Making (6)
MBA 630 Leading in the Multicultural Global Environment (6)
MBA 640 Innovation Through Marketing and Technology (6)
MBA 670 Strategic Decision Making (6)

COURSE SEQUENCING

Courses must be taken in the order listed.

Criteria for Program Progression

You must complete each course with a grade of B or better to advance to the next course. (The grade of C is not available for these courses.) Your course syllabus will explain options for and consequences of requesting an Incomplete.

Program Accreditation

UMGC has received specialized accreditation for its Master of Business Administration program through the International Accreditation Council for Business Education (IACBE), located at 11374 Strang Line Road in Lenexa, Kansas, USA. IACBE is a specialized accrediting agency recognized by the Council for Higher Education Accreditation.

Cloud Computing Architecture

You may earn a Master of Science in Cloud Computing Architecture.

Master of Science in Cloud Computing Architecture

The graduate program in cloud computing architecture is designed to equip you with the technical and management skills to effectively design, operate, and maintain cloud computing systems and help organizations transition to cloud-based solutions. You'll learn to strategically transform an organization's current infrastructure to one that efficiently delivers valuable services via the cloud. Through a broad understanding of cloud technology and its relationship to business processes, including financial management, procurement, and communications, you'll be able to design effective cloud environments—and ultimately become a strong asset in any organization.

UMGC was named a National Center of Academic Excellence in Cyber Defense Education by the National Security Agency and the Department of Homeland Security.

What You'll Learn

Through your coursework, you will learn how to

- Explain cloud computing concepts and applicable benefits to business stakeholders
- Evaluate and assess the impact of cloud computing on service management
- Design effective cloud computing solutions that take into account an organization's structure, communications, and operational business processes, as well as financial management and cost model implications
- Manage the process of migrating and transitioning to a cloud environment
- Implement cloud computing architecture solutions that address cloud security and compliance fundamentals, deployment automation and elastic sizing of environments, and multitenant implications

Preparation Recommended for Success

EXPECTATIONS

The cloud computing architecture program is designed for students with academic or professional experience in information technology. This background may be acquired through noncredit preparatory coursework, listed below.

MASTER'S DEGREE PROGRAMS CURRICULA

RECOMMENDATIONS

If you do not have any recent IT coursework or experience, you should take the noncredit course ASC 605 before taking any cloud computing courses. Taking ASC 601 is recommended to help improve writing skills.

Vertical Pathway

If you completed your undergraduate degree at UMGC with a major in computer networks and cybersecurity, a vertical pathway between UMGC's undergraduate and graduate programs in that field allows you to earn 6 credits in the Master of Science in Cloud Computing Architecture and/or the certificate in Cloud Computing and Networking. Details are on p. 20.

Degree Requirements

MS IN CLOUD COMPUTING ARCHITECTURE

	Credits
Required Foundation Course	6
Required Core Courses	30
Total	36

REQUIRED FOUNDATION COURSE

DCL 600 Decisive Thinking, Communicating, and Leading (6)

REQUIRED CORE COURSES

CCA 610 Cloud Services and Technologies (6)

CCA 625 Network Engineering (6)

CCA 630 Cloud Infrastructure Planning, Design, and Configurations (6)

CCA 640 Cloud Computing Implementations and Migrations (6)

CCA 670 Capstone: Cloud Computing Orchestration (6)

COURSE SEQUENCING

Courses must be taken in the order listed.

Criteria for Program Progression

You must complete each course with a grade of B or better to advance to the next course. (The grade of C is not available for these courses.) Your course syllabus will explain options for and consequences of requesting an Incomplete.

Technology Requirements

The cloud computing architecture program requires that you use a computer with the following:

- Microphone and speakers or headset with microphone or equivalent device(s)
- 5 GB (gigabytes) of free hard drive space
- 4 GB RAM or higher
- A high-speed internet connection
- Computer processor (Intel Pentium 4 or AMD Athlon 64) running at speeds of at least 1 GHz
- Windows 8.1 or Mac OS X 10.6 or higher for an operating system (Linux operating systems can also be used but require more technical knowledge from the user.)

Note: The higher the processor speed of your computer (e.g., 2.4–3.4 GHz), the larger the amount of available memory (e.g., 4–12 GB), and the larger the amount of available hard drive space (e.g., 5–20 GB), the better your computer will perform and the smoother your experience will be.

Honor Society

Information on eligibility for membership in the UMGC chapter of Upsilon Pi Epsilon, the national academic honor society for the computing and information disciplines, is available on p. 292.

Cyber Operations

You may earn a Master of Science in Cyber Operations.

Master of Science in Cyber Operations

The graduate program in cyber operations is an interdisciplinary technical program designed to provide the knowledge, skills, and abilities required to successfully perform critical cyber operations tasks. Based on the content and curriculum recommendations by the National Centers of Academic Excellence in Cyber Operations (CAE-CO), the program responds to a growing national need, driven by increasing threats of global cyberwarfare, for cyber professionals with advanced training in both defensive cybersecurity and offensive cyber actions.

The program features the technologies, techniques, and exercises that help government, military, and law enforcement organizations to conduct collection, exploitation, and analysis, as well as respond to cyber events to enhance the security of our nation, in hands-on labs, projects, and exercises.

UMGC was named a National Center of Academic Excellence in Cyber Defense Education by the National Security Agency and the Department of Homeland Security.

MASTER'S DEGREE PROGRAMS CURRICULA

What You'll Learn

Through your coursework, you will learn how to

- Design systems that are based on security design principles and employ multiple layers of protection to meet mission security goals
- Perform risk assessment to identify risk to an organization and facilitate appropriate responses
- Develop appropriate cryptographic solutions for a given enterprise architecture scenario
- Protect networks, hosts, and applications using intrusion detection and prevention systems (IDPS)
- Mitigate vulnerabilities in the components that make up a system
- Use virtualization to create multiple simulated environments from a single hardware system to reduce IT expenses
- Migrate an existing workload to a secure, scalable cloud environment
- Perform a forensics analysis on artifacts associated with a cyber incident
- Write high-quality, defect-free software code
- Perform reverse engineering on software (or malware) of potentially unknown origin to understand functionality, intent, and constraints of the code
- Explain processes, laws, and issues associated with conducting cyber operations
- Assume the roles of an adversary and defender in a cyber operations attack scenario to identify and prevent cyber intrusion activities safely, ethically, and within the scope of applicable laws

Academic Preparation

Ideally, you should have recently completed an undergraduate degree in computer science or a related discipline.

Preparation Recommended for Success

EXPECTATIONS

You are expected to be familiar with cybersecurity and computer science concepts and be comfortable developing code in at least one programming language and to have recently completed an undergraduate technical degree in computing. Experience performing cybersecurity tasks in a work environment would enhance the learning experience.

RECOMMENDATIONS

If you do not have work experience in information technology, computer networks, or cybersecurity, you are advised to take ASC 605 first. If you have not taken programming courses previously, you are strongly encouraged to take ASC 609. Taking ASC 601 is recommended to improve your graduate writing skills.

Vertical Pathway

If you completed your undergraduate degree at UMGC with a major in computer networks and cybersecurity, a vertical pathway between UMGC's undergraduate and graduate programs in that field allows you to earn 6 credits toward the Master of Science in Cyber Operations and/or the certificate in Cyber Operations. Details are on p. 20.

Degree Requirements

MS IN CYBER OPERATIONS

	Credits
Required Foundation Course	6
Required Core Courses	30
Total	36

REQUIRED FOUNDATION COURSE

DCL 600 Decisive Thinking, Communicating, and Leading (6)

REQUIRED CORE COURSES

COP 610 Foundations of Cyber Operations (6)

COP 620 Cybersecurity Defense (6)

COP 630 Cyber Law and Digital Forensics (6)

COP 640 Secure Software (6)

COP 670 Capstone in Cyber Offense (6)

COURSE SEQUENCING

Courses must be taken in the order listed.

Criteria for Program Progression

You must complete each course with a grade of B or better to advance to the next course. (The grade of C is not available for these courses.) Your course syllabus will explain options for and consequences of requesting an Incomplete.

MASTER'S DEGREE PROGRAMS CURRICULA

Technology Requirements

The cyber operations program requires that you use a computer with the following:

- Microphone and speakers or headset with microphone or equivalent device(s)
- 5 GB (gigabytes) of free hard drive space
- 4 GB RAM or higher
- A high-speed internet connection
- Computer processor (Intel Pentium 4 or AMD Athlon 64) running at speeds of at least 1 GHz
- Windows 8.1 or Mac OS X 10.6 or higher for an operating system (Linux operating systems can also be used but require more technical knowledge from the user.)

Note: The higher the processor speed of your computer (e.g., 2.4–3.4 GHz), the larger the amount of available memory (e.g., 4–12 GB), and the larger the amount of available hard drive space (e.g., 5–20 GB), the better your computer will perform and the smoother your experience will be.

Honor Society

Information on eligibility for membership in the UMGC chapter of Upsilon Pi Epsilon, the national academic honor society for the computing and information disciplines, is available on p. 292.

Cybersecurity Management and Policy

You may earn a Master of Science in Cybersecurity Management and Policy.

Master of Science in Cybersecurity Management and Policy

The graduate program in cybersecurity management and policy can help you gain the tools you need to join the management track in cybersecurity, so you can establish, implement, and oversee a cybersecurity structure for an organization. In this program, you can learn how to create a security approach that combines technology, governance, and compliance perspectives and gain advanced knowledge in organizational structures, communications, operational business processes, and the legal framework for cybersecurity policy.

UMGC was named a National Center of Academic Excellence in Cyber Defense Education by the National Security Agency and the Department of Homeland Security.

What You'll Learn

Through your coursework, you will learn how to

- Understand multinational compliance requirements for cybersecurity
- Apply risk analysis concepts and models to a variety of organizations
- Incorporate cybersecurity into numerous organizations, including healthcare and financial services organizations
- Create and establish cybersecurity frameworks in both the public and private sectors
- Develop complete cybersecurity incident response plans
- Play the role of a new chief financial officer tasked with performing a comprehensive analysis of a new S&P 500 company
- Present a paper to a chief executive officer

INDUSTRY CERTIFICATION

This program is designed to help prepare you for the following certification exams, listed in alphabetical order:

- Certified Information Systems Security Professional (CISSP)
- CompTIA Security+
- Project Management Professional (PMP)

Preparation Recommended for Success

EXPECTATIONS

You are expected to have some background in information technology. This background may be acquired through noncredit preparatory coursework, listed below.

RECOMMENDATIONS

If you do not have previous coursework or experience in programming, you should first enroll in ASC 605, ASC 609, and ASC 611 to gain the appropriate foundation. Taking ASC 601 is recommended to help improve writing skills.

Vertical Pathway

If you completed your undergraduate degree at UMGC with a major in computer networks and cybersecurity, a vertical pathway between UMGC's undergraduate and graduate programs in that field allows you to earn 6 credits toward the Master of Science in Cybersecurity Management and Policy and/or the certificate in Cybersecurity Management and Policy. Details are on p. 20.

MASTER'S DEGREE PROGRAMS CURRICULA

Degree Requirements

MS IN CYBERSECURITY MANAGEMENT AND POLICY

	Credits
Required Foundation Course	6
Required Core Courses	30
Total	36

REQUIRED FOUNDATION COURSE

CBR 600 Communicating, Problem Solving, and Leading in Cybersecurity (6)

REQUIRED CORE COURSES

CMP 610 Foundations in Cybersecurity Management (6)
CMP 620 Cybersecurity Governance (6)
CMP 630 Cybersecurity Risk Management and Organizational Resilience (6)
CMP 640 Cybersecurity Program Development (6)
CYB 670 Capstone in Cybersecurity (6)

COURSE SEQUENCING

Courses must be taken in the order listed.

Criteria for Program Progression

You must complete each course with a grade of B or better to advance to the next course. (The grade of C is not available for these courses.) Your course syllabus will explain options for and consequences of requesting an Incomplete.

Technology Requirements

The cybersecurity management and policy program requires that you use a computer with the following:

- Microphone and speakers or headset with microphone or equivalent device(s)
- 5 GB (gigabytes) of free hard drive space
- 4 GB RAM or higher
- A high-speed internet connection

- Computer processor (Intel Pentium 4 or AMD Athlon 64) running at speeds of at least 1 GHz
- Windows 8.1 or Mac OS X 10.6 or higher for an operating system (Linux operating systems can also be used but require more technical knowledge from the user.)

Note: The higher the processor speed of your computer (e.g., 2.4–3.4 GHz), the larger the amount of available memory (e.g., 4–12 GB), and the larger the amount of available hard drive space (e.g., 5–20 GB), the better your computer will perform and the smoother your experience will be.

Honor Society

Information on eligibility for membership in the UMGC chapter of Upsilon Pi Epsilon, the national academic honor society for the computing and information disciplines, is available on p. 292.

Cybersecurity Technology

You may earn a Master of Science in Cybersecurity Technology.

Master of Science in Cybersecurity Technology

Cybersecurity technology underpins the success of organizations and national critical infrastructures. Modern executives need to be able to use that technology, as well as people and policy, to minimize risks while ensuring success for their organizations. They also need to balance risks and opportunities holistically through an interdisciplinary lens. This innovative graduate program offers that wide perspective, providing a blend of people, policy, and technology skills to prepare the modern digital strategists that organizations need.

UMGC was named a National Center of Academic Excellence in Cyber Defense Education by the National Security Agency and the Department of Homeland Security.

What You'll Learn

Through your coursework, you will learn how to

- Tailor digital strategies to the mission of an organization
- Understand how to balance the use of people, policy, and technology
- Understand how to analyze, think critically, and improve perpetually
- Be a cybersecurity technology leader in the modern world
- Develop a cybersecurity technology strategy for an organization
- Build cybersecurity technology environments and operations
- Develop resilient and highly fault-tolerant technology environments

MASTER'S DEGREE PROGRAMS CURRICULA

- Enable organizations to make better business decisions through reliable data analytics and intelligence
- Perform proactive business risk management and solve problems
- Develop strategies for mobile, cloud, and emerging environments such as the Internet of Things (IoT)

INDUSTRY CERTIFICATION

This program is designed to help prepare you for the following certification exams, listed in alphabetical order:

- Certified Ethical Hacker (CEH)
- Certified Information Systems Security Professional (CISSP)
- Global Information Assurance Certification (GIAC)

Preparation Recommended for Success

EXPECTATIONS

You are expected to have a strong understanding of information technology, computer networks, databases, and the internet. This background may be acquired through noncredit preparatory coursework, listed below.

RECOMMENDATIONS

If you do not have the expected IT knowledge or experience, you are strongly advised to take the noncredit course ASC 605 first. Taking ASC 601 is recommended to help improve writing skills.

Vertical Pathway

If you completed your undergraduate degree at UMGC with a major in computer networks and cybersecurity, a vertical pathway between UMGC's undergraduate and graduate programs in that field allows you to earn 6 credits toward the Master of Science in Cybersecurity Technology and/or the certificate in Cybersecurity Technology. Details are on p. 19.

Degree Requirements

MS IN CYBERSECURITY TECHNOLOGY

	Credits
Required Foundation Course	6
Required Core Courses	30
Total	36

REQUIRED FOUNDATION COURSE

CBR 600 Communicating, Problem Solving, and Leading in Cybersecurity (6)

REQUIRED CORE COURSES

- CST 610 Cyberspace and Cybersecurity Foundations (6)
- CST 620 Prevention of Cyber Attack Methodologies (6)
- CST 630 Advanced Cyber Exploitation and Mitigation Methodologies (6)
- CST 640 Digital Forensics Technology and Practices (6)
- CYB 670 Capstone in Cybersecurity (6)

COURSE SEQUENCING

Courses must be taken in the order listed.

Criteria for Program Progression

You must complete each course with a grade of B or better to advance to the next course. (The grade of C is not available for these courses.) Your course syllabus will explain options for and consequences of requesting an Incomplete.

Technology Requirements

The cybersecurity technology program requires that you use a computer with the following:

- Microphone and speakers or headset with microphone or equivalent device(s)
- 5 GB (gigabytes) of free hard drive space
- 4 GB RAM or higher
- A high-speed internet connection
- Computer processor (Intel Pentium 4 or AMD Athlon 64) running at speeds of at least 1 GHz
- Windows 8.1 or Mac OS X 10.6 or higher for an operating system (Linux operating systems can also be used but require more technical knowledge from the user.)

Note: The higher the processor speed of your computer (e.g., 2.4–3.4 GHz), the larger the amount of available memory (e.g., 4–12 GB), and the larger the amount of available hard drive space (e.g., 5–20 GB), the better your computer will perform and the smoother your experience will be.

Honor Society

Information on eligibility for membership in the UMGC chapter of Upsilon Pi Epsilon, the national academic honor society for the computing and information disciplines, is available on p. 292.

MASTER'S DEGREE PROGRAMS CURRICULA

Data Analytics

You may earn a Master of Science in Data Analytics.

Master of Science in Data Analytics

The master's degree program in data analytics is designed to meet the rising need for highly skilled professionals who can transform the growing amount of institutional data into valuable assets. You'll gain hands-on experience with a variety of analytical tools and learn how to manage and manipulate data, create data visualizations, and make strategic data-driven recommendations to influence business outcomes. By using industry knowledge and contextual understanding and questioning existing assumptions, you'll learn to uncover hidden solutions to business challenges, allowing your organization to build and sustain a long-term competitive advantage.

What You'll Learn

Through your coursework, you will learn how to

- Evaluate a business problem or opportunity to determine the extent to which data analytics can provide a viable solution and translate the business problem to a data analytics project
- Manage data analytics projects to ensure delivery of a successful data analytics initiative throughout its life cycle
- Create a data mining application specific to an individual domain or area (e.g., finance; cybersecurity; biological, medical, or scientific applications; or retail)
- Apply statistical and machine-learning techniques for data analysis and interpret and communicate the results
- Transform large data sets into actionable information in an easy-to-understand format to support organizational decision making through the use of advanced analytical tools
- Apply big data analytics technology to a specific area, such as healthcare; marketing; insurance; cybersecurity; or biological, medical, and scientific applications
- Evaluate the appropriate methods and tools for data analysis (including selecting a modeling approach, building a model using appropriate tools, validating the model, and deploying the model for prediction and analysis) in specific organizational contexts

Preparation Recommended for Success

EXPECTATIONS

You are expected to have a background in software programming and statistics. This background may be acquired through noncredit preparatory coursework, listed below.

RECOMMENDATIONS

If you do not have recent coursework or experience in programming, you are strongly advised to take UCSP 635 and UCSP 636 (or their equivalent). If you don't have recent statistics experience, you should take UCSP 630. Taking UCSP 605 is recommended to help improve writing skills.

Degree Requirements

MS IN DATA ANALYTICS

	Credits
Required Core Courses	30
Required Capstone Course	6
Total	36

INITIAL REQUIREMENT

(to be taken within the first 6 credits of study)

UCSP 615 Orientation to Graduate Studies at UMGC (0)

REQUIRED CORE COURSES

DATA 610	Decision Management Systems (6)
DATA 620	Data Management and Visualization (6)
DATA 630	Machine Learning (6)
DATA 640	Predictive Modeling (6)
DATA 650	Big Data Analytics (6)

REQUIRED CAPSTONE COURSE

DATA 670 Data Analytics Capstone (6)

COURSE SEQUENCING

Courses must be taken in the order listed.

MASTER'S DEGREE PROGRAMS

CURRICULA

Digital Forensics and Cyber Investigation

You may earn a Master of Science in Digital Forensics and Cyber Investigation.

Master of Science in Digital Forensics and Cyber Investigation

The graduate program in digital forensics and cyber investigation is designed to prepare you to meet the growing demand for investigative, leadership, and executive skills in evaluating and managing complex cybersecurity incidents and threats. Learn how to determine whether a digital system has been attacked or compromised, and master reliable methods to identify, preserve, analyze, and present evidence for legal prosecution, administrative proceedings, and business purposes. In this program, you can develop investigative problem-solving skills, contribute to important team deliverables, analyze complex data scenarios, examine digital media for evidentiary artifacts, and write detailed digital forensic examination reports. The applied knowledge and skills you acquire can help government, business, and law enforcement organizations in detecting data breaches, mitigating cyber attacks, identifying responsible parties, and evaluating evidence of digital crime.

UMGC was named a National Center of Academic Excellence in Cyber Defense Education by the National Security Agency and the Department of Homeland Security.

What You'll Learn

Through your coursework, you will learn how to

- Design procedures at a suspected crime scene to ensure that the digital evidence obtained is not corrupted
- Conduct hands-on forensic searches to identify intrusion methods
- Employ rigorous procedures to enable forensic results that can withstand scrutiny in a court of law
- Explain the operation of digital components
- Seize, image, deconstruct, and analyze digital media for evidence
- Prepare professional reports
- Present digital forensics results in a court of law as an expert witness

INDUSTRY CERTIFICATION

This program is designed to help prepare you for the following certification exams, listed in alphabetical order:

- AccessData Certified Examiner (ACE)
- EC-Council Certified Incident Handler (ECIH)
- EnCase Certified Examiner (EnCE)

Preparation Recommended for Success

EXPECTATIONS

You are expected to have some background in computing and programming. This background may be acquired through noncredit preparatory coursework, listed below.

RECOMMENDATIONS

If you do not have experience in computing, you are strongly advised to take the noncredit course ASC 605. If you have not previously taken programming courses, you are strongly advised to take ASC 609. Taking ASC 601 is recommended to help improve writing skills.

Vertical Pathway

If you completed your undergraduate degree at UMGCC with a major in computer networks and cybersecurity, a vertical pathway between UMGCC's undergraduate and graduate programs in that field allows you to earn 6 credits toward the Master of Science in Digital Forensics and Cyber Investigation and/or the certificate in Digital Forensics and Cyber Investigation. Details are on p. 20.

Degree Requirements

MS IN DIGITAL FORENSICS AND CYBER INVESTIGATION

	Credits
Required Foundation Course	6
Required Core Courses	30
Total	36

REQUIRED FOUNDATION COURSE

CBR 600 Communicating, Problem Solving, and Leading in Cybersecurity (6)

MASTER'S DEGREE PROGRAMS CURRICULA

REQUIRED CORE COURSES

DFC 610	Cyberspace and Cybersecurity Foundations (6)
DFC 620	Digital Forensics Technology and Practices (6)
DFC 630	Digital Forensic Response and Analysis (6)
DFC 640	Advanced Forensics (6)
CYB 670	Capstone in Cybersecurity (6)

COURSE SEQUENCING

Courses must be taken in the order listed.

Criteria for Program Progression

You must complete each course with a grade of B or better to advance to the next course. (The grade of C is not available for these courses.) Your course syllabus will explain options for and consequences of requesting an Incomplete.

Technology Requirements

The digital forensics and cyber investigation program requires that you use a computer with the following:

- Microphone and speakers or headset with microphone or equivalent device(s)
- 5 GB (gigabytes) of free hard drive space
- 4 GB RAM or higher
- A high-speed internet connection
- Computer processor (Intel Pentium 4 or AMD Athlon 64) running at speeds of at least 1 GHz
- Windows 8.1 or Mac OS X 10.6 or higher for an operating system (Linux operating systems can also be used but require more technical knowledge from the user.)

Note: The higher the processor speed of your computer (e.g., 2.4–3.4 GHz), the larger the amount of available memory (e.g., 4–12 GB), and the larger the amount of available hard drive space (e.g., 5–20 GB), the better your computer will perform and the smoother your experience will be.

Honor Society

Information on eligibility for membership in the UMGC chapter of Upsilon Pi Epsilon, the international honor society for the computing and information disciplines, is available on p. 292.

Distance Education and E-Learning

You may earn a Master of Distance Education and E-Learning.

Master of Distance Education and E-Learning

In UMGC's Master of Distance Education and E-Learning (MDE) program, you'll learn management strategies and gain the practical experience needed to design and lead distance education programs with confidence. You'll develop essential skills in implementing distance learning technology, managing online faculty, and directing the business aspects of distance education programs. This program will help you acquire the unique skills and knowledge needed to maintain a successful enterprise in a technology-mediated learning environment. Although the MDE is not intended as a teacher preparation program, it provides the theory, best practices, and background that are relevant for teaching and administration. You can make a difference by expanding learning opportunities for others.

Whether you're new to the field, changing careers, or looking to move up, you'll enhance your credentials with a respected degree and prepare for a wide range of mid- and senior-level management roles in the rapidly growing field of distance education and e-learning.

Note: The MDE program does not lead to teacher certification in Maryland.

What You'll Learn

Through your coursework, you will learn how to

- Apply education theory, learning models, and various teaching and learning frameworks in distance education
- Develop and manage distance education curricula
- Manage intellectual property and digital rights
- Select learning technologies
- Perform cost/benefit analyses for distance learning programs
- Work with various organizational and staffing models in distance education, as well as different leadership styles
- Apply distance learning programs in the workplace to drive professional development
- Manage change in organizations
- Perform quality assurance and project management of e-learning initiatives

MASTER'S DEGREE PROGRAMS CURRICULA

Preparation Recommended for Success

RECOMMENDATIONS

Taking UCSP 605 is recommended to help improve writing skills.

Degree Requirements

MDE	
	Credits
Required Core Courses	33
Required Capstone Course	3
Total	36

INITIAL REQUIREMENT

(to be taken within the first 6 credits of study)

UCSP 615 Orientation to Graduate Studies at UMGC (0)

REQUIRED CORE COURSES

OMDE 601	Foundations of Distance Education and E-Learning (3)
OMDE 610	Teaching and Learning in Online Distance Education (3)
OMDE 603	Technology in Distance Education and E-Learning (3)
OMDE 608	Learner Support in Distance Education and Training (3)
OMDE 606	Costs and Economics of Distance Education and E-Learning (3)
DETT 611	Library and Intellectual Property Issues in Distance Education and E-Learning (3)
DETT 607	Instructional Design and Course Development in Distance Education and E-Learning (3)
DETC 620	Training and Learning with Multimedia (3)
DEPM 604	Management and Leadership in Distance Education and E-Learning (3)
DETT 621	Online Learning and Development in the Workplace (3)
DEPM 622	The Business of Distance Education and E-Learning (3)

REQUIRED CAPSTONE COURSE

OMDE 670 Portfolio and Project in Distance Education and E-Learning (3)

COURSE SEQUENCING

Courses must be taken in the order listed. Sequential courses may be taken concurrently.

Environmental Management

You may earn a Master of Science in Environmental Management.

Master of Science in Environmental Management

With more than 267,000,000 tons of solid waste generated nationally each year, about 200 U.S. counties in nonattainment of the eight-hour ozone standard, and more than half of American rivers too polluted to support healthy aquatic life, the country has a clear need for environmental managers to implement pollution prevention and waste management strategies to meet our national goals for clean air and water. Almost every industrial, commercial, governmental, and military organization has to solve problems in pollution prevention and waste management. In the environmental management program, you'll learn the business management skills, industry-standard technology, and environmental science needed to assume high-level management responsibilities for environmental programs in a wide range of organizations.

Perfect for midcareer professionals, the environmental management program will give you expert decision-making skills and practical experience that can boost your professional value and give you the confidence to lead.

What You'll Learn

Through your coursework, you will learn how to

- Assess threats, hazards, and risks to the environment from an organization's operations
- Analyze and communicate health, safety, and environmental risks
- Manage, plan, and conduct comprehensive environmental compliance, managerial, and liability audits for various industrial and commercial facilities
- Develop a team and manage an environmental project/program for an organization or government agency

MASTER'S DEGREE PROGRAMS

CURRICULA

- Use key technologies and software tools, such as Crystal Ball and ARC GIS
- Develop planning documents for watershed management and air quality programs
- Use different methods of measurement and modeling to complete the four core parts of a risk assessment
- Lead projects involving hazardous and municipal solid waste, pollution prevention techniques, and waste minimization
- Apply environmental economic principles to property rights, pollution damage and abatement costs, and cost/benefit analyses
- Develop strategies for protecting workers in the context of organizational and budgetary constraints
- Understand U.S. environmental and energy law and policy, including its development, implementation, and enforcement
- Apply best practices in land use management, including where to build, where not to build, how to build, and when to build

Preparation Recommended for Success

EXPECTATIONS

You should have completed at least one undergraduate course each in chemistry and biology. Prior experience in an environmental field is also helpful.

RECOMMENDATIONS

Taking UCSP 605 is recommended to help improve writing skills.

Degree Requirements

MS IN ENVIRONMENTAL MANAGEMENT

	Credits
Required Core Courses	33
Required Capstone Course	3
Total	36

INITIAL REQUIREMENT

(to be taken within the first 6 credits of study)

UCSP 615 Orientation to Graduate Studies at UMGC (0)

REQUIRED CORE COURSES

ENVM 600	Fundamentals of Environmental Systems (3)
ENVM 610	Environmental/Energy Law and Policy Development (3)
ENVM 641	Environmental Auditing (3)
ENVM 643	Environmental Communications and Reporting (3)
ENVM 644	New Technologies in Environmental Management (3)
ENVM 647	Environmental Risk Assessment (3)
ENVM 649	Principles and Practices of Waste Management (3)
ENVM 650	Environmental and Natural Resources Economics (3)
ENVM 651	Water Resources Management (3)
ENVM 652	Principles of Air Quality Management (3)
ENVM 653	Land Use Management (3)

REQUIRED CAPSTONE COURSE

ENVM 670	Capstone in Environmental Management (3)
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COURSE SEQUENCING

- ENVM 600 and ENVM 610 must be taken within the first 9 credits of study.
- You must complete 27 credits of program coursework before enrolling in ENVM 670.

Program Recognition

UMGC's MS in Environmental Management has been designated a Professional Science Master's degree program through the Council of Graduate Schools.

MASTER'S DEGREE PROGRAMS

CURRICULA

Healthcare Administration

You may earn a Master of Science in Healthcare Administration.

Master of Science in Healthcare Administration

Healthcare administrators manage complex organizations that serve diverse individual and community needs. The master's degree program in healthcare administration is designed to develop leaders in this dynamic field that touches all of us. In this program, you can gain the expert knowledge, management skills, and strong professional development you need to seize career opportunities and maximize your potential in this era of rapid healthcare transformation.

What You'll Learn

Through your coursework, you will learn how to

- Demonstrate knowledge of different models in healthcare administration, including contemporary theories, critical perspectives, and best practices for performance excellence in a highly competitive healthcare environment
- Apply strong financial management skills and techniques for responding to uncompensated care, cost increases, increased competition, and increased regulation
- Employ statistical tools to analyze health data and make effective business decisions
- Use decision-making skills for institutional management, organizational development, and intercultural work environments
- Strategically plan, implement, and evaluate information systems
- Evaluate regulatory constraints, provider liability, patient rights, employment law and labor relations, and administrative law for healthcare organizations
- Analyze public health issues and their impact on healthcare organizations
- Solve ongoing problems in healthcare financing and delivery
- Develop a comprehensive business plan for a healthcare product, service, or organization

INDUSTRY CERTIFICATION

This program can help prepare you for the Board of Governors examination for certification as a Fellow of the American College of Healthcare Executives (FACHE).

Preparation Recommended for Success

RECOMMENDATIONS

If you lack a recent background in finance or accounting, you should take UCSP 620 before HCAD 640. If you lack a recent background in statistics, you should take UCSP 630 before MGMT 650. Taking UCSP 605 is recommended to help improve writing skills.

Degree Requirements

MS IN HEALTHCARE ADMINISTRATION

	Credits
Required Management Foundation Courses	6
Required Healthcare Administration Courses	33
Required Capstone Course	3
Total	42

INITIAL REQUIREMENT

(to be taken within the first 6 credits of study)

UCSP 615 Orientation to Graduate Studies at UMGC (0)

REQUIRED MANAGEMENT FOUNDATION COURSES

MGMT 615 Intercultural Communication and Leadership (3)

MGMT 650 Statistics for Managerial Decision Making (3)

REQUIRED HEALTHCARE ADMINISTRATION COURSES

HCAD 600 Introduction to Healthcare Administration (3)

HCAD 610 Information Technology for Healthcare Administration (3)

HCAD 620 The U.S. Healthcare System (3)

HCAD 625 The Business of Healthcare (3)

HCAD 630 Public Health Administration (3)

HCAD 635 Long-Term Care Administration (3)

HCAD 640 Financial Management for Healthcare Organizations (3)

HCAD 645 Strategic Financial Management in Healthcare (3)

HCAD 650 Legal Aspects of Healthcare Administration (3)

HCAD 660 Healthcare Institutional Organization and Management (3)

HCAD 665 Strategic Issues in Healthcare Leadership (3)

MASTER'S DEGREE PROGRAMS CURRICULA

REQUIRED CAPSTONE COURSE

HCAD 670 Healthcare Administration Capstone (3)

COURSE SEQUENCING

- HCAD 600 and MGMT 615 should be taken as the first courses in the program.
- MGMT 650 should be taken in the second or third semester.
- HCAD 620 is prerequisite to HCAD 625.
- HCAD 640 is prerequisite to HCAD 645.
- MGMT 650 should not be taken at the same time as HCAD 640 or HCAD 645.
- You must complete 36 credits before enrolling in HCAD 670.

Honor Society

Information on eligibility for membership in the UMGC chapter of Upsilon Phi Delta, the national academic honor society of the Association of University Programs in Health Administration, is available on p. 292.

Health Informatics Administration

You may earn a Master of Science in Health Informatics Administration.

Master of Science in Health Informatics Administration

The cutting-edge health informatics administration program is taught by healthcare technology professionals who can help you to develop the expertise to oversee the complex coordination of your organization's health informatics and administration needs.

If you are an experienced healthcare professional or an information technology specialist working in a healthcare setting or are looking to transition to this exciting field, the health informatics administration program can help you obtain the skills and knowledge you need to apply best practices in health informatics or information management in a dynamic healthcare environment.

What You'll Learn

Through your coursework, you will learn how to

- Apply advanced knowledge of electronic health record systems, medical coding, and IT systems security and interoperability
- Design, manage, and interpret health classification systems, healthcare databases, data warehouses, healthcare data sets, registries, and other mediums of health information management
- Design and implement various health informatics and information management policies and procedures (e.g., those related to fraud and surveillance, data management, personnel management, data privacy, security and confidentiality, and clinical documentation improvement)
- Interpret and comply with various aspects of state and federal legal and regulatory standards (e.g., coding and revenue, privacy, security, federal employee labor laws, confidentiality, release of information, maintenance of health records, licensure, and accreditation)

INDUSTRY CERTIFICATION

This program is designed to help prepare you for the following certification exams, listed in alphabetical order:

- Certified Associate in Healthcare Information and Management Systems (CAHIMS)
- Certified Associate in Project Management (CAPM)
- Certified Professional in Healthcare Information and Management Systems (CPHIMS)
- Certified Professional in Health Informatics (CPHI)
- Project Management Professional (PMP)
- Registered Health Information Administrator (RHIA)

Preparation Recommended for Success

EXPECTATIONS

You will find it beneficial to have three years of professional work experience in a healthcare setting, especially in health information technology or information technology, although it is not required.

RECOMMENDATIONS

Taking UCSP 605 is recommended to help improve writing skills.

MASTER'S DEGREE PROGRAMS

CURRICULA

Degree Requirements

MS IN HEALTH INFORMATICS ADMINISTRATION

	Credits
Required Core Courses	33
Required Capstone Course	3
Total	36

INITIAL REQUIREMENT

(to be taken within the first 6 credits of study)

UCSP 615 Orientation to Graduate Studies at UMGC (0)

REQUIRED CORE COURSES

HCAD 600 Introduction to Healthcare Administration (3)

ITEC 610 Information Technology Foundations (3)

INFA 610 Foundations of Information Security and Assurance (3)

HIMS 650 Research Methods for Healthcare Managers (3)

HIMS 655 Health Data Management (3)

HCAD 640 Financial Management for Healthcare Organizations (3)

HCAD 650 Legal Aspects of Healthcare Administration (3)

HIMS 661 The Application of Information Technology in Healthcare Administration (3)

ITEC 640 Information Technology Project Management (3)

DBST 651 Relational Database Systems (3)

IMAT 637 IT Acquisitions Management (3)

REQUIRED CAPSTONE COURSE

HIMS 670 Health Informatics Administration Capstone (3)

COURSE SEQUENCING

- You are advised to take HCAD 600 and ITEC 610 first.
- You will benefit most by taking the courses in the order listed.
- You must have successfully completed 30 credits of program coursework, including HIMS 650, HIMS 655, and HIMS 661, before enrolling in HIMS 670.

Program Accreditation

UMGC's MS in Health Informatics Administration is accredited by the Commission for Health Informatics and Information Management Education (CAHIIM), an independent organization that accredits health informatics and health information management degree programs. CAHIIM is a specialized accrediting agency recognized by the Council for Higher Education Accreditation and an approved education partner of the Health Information and Management Systems Society (HIMSS).

Information Technology

You may earn a Master of Science in Information Technology, with a specialization in any one of the following areas:

- Database Systems Technology
- Homeland Security Management
- Informatics
- Information Assurance
- Project Management
- Software Engineering
- Systems Engineering

Master of Science in Information Technology: Database Systems Technology Specialization

A specialization in database systems technology can prepare you to meet the demand for data professionals who can manage complex databases for large organizations. You can develop expertise in relational and distributed databases and acquire the newest knowledge in data warehousing, mining, modeling, security, and other sought-after areas of database administration. The program can help prepare you for a number of certifications as you work on real-world projects in a respected graduate program as you build your professional value in this fast-growing field.

What You'll Learn

Through your coursework, you will learn how to

- Manage, mine, model, and warehouse data
- Utilize your database administration and security techniques and skills
- Use ETL for data warehousing
- Complete projects using Microsoft Project and Microsoft Visio
- Apply your skills in NoSQL, Oracle 12c, SQL, and UNIX to the professional environment

MASTER'S DEGREE PROGRAMS CURRICULA

INDUSTRY CERTIFICATION

This program is designed to help prepare you for the following certification exams, listed in alphabetical order:

- ICCP Certified Data Management Professional (ICCP CDMP)
- Oracle Certified Professional (OCP)
- Oracle Database Administration (DBA)

Academic Preparation

If you do not have demonstrated experience or prior coursework in software programming, you may be required to complete UCSP 635.

Preparation Recommended for Success

RECOMMENDATIONS

Taking UCSP 605 is recommended to help improve writing skills.

Degree Requirements

MS IN INFORMATION TECHNOLOGY: DATABASE SYSTEMS TECHNOLOGY SPECIALIZATION

	Credits
Required Core Courses	12
Required Specialization Courses	24
Total	36

INITIAL REQUIREMENT

(to be taken within the first 6 credits of study)

UCSP 615 Orientation to Graduate Studies at UMGC (0)

REQUIRED CORE COURSES

ITEC 625	Computer Systems Architecture (3)
ITEC 626	Information Systems Infrastructure (3)
ITEC 630	Information Systems Analysis, Modeling, and Design (3)
ITEC 640	Information Technology Project Management (3)

REQUIRED SPECIALIZATION COURSES

DBST 651	Relational Database Systems (3)
DBST 660	Advanced Data Modeling (3)

DBST 652	Advanced Relational/Object-Relational Database Systems (3)
DBST 663	Distributed Database Management Systems (3)
DBST 665	Data Warehouse Technologies (3)
DBST 667	Data Mining (3)
DBST 668	Database Security (3)
DBST 670	Database Systems Administration (3)

COURSE SEQUENCING

- ITEC 625 and ITEC 626 must be taken as the first two courses.
- You must complete 6 credits of core coursework before beginning specialization coursework.
- DBST 651 is prerequisite for all other specialization coursework and may not be taken concurrently with other specialization coursework.
- You must complete all other specialization coursework before taking DBST 670.

Honor Society

Information on eligibility for membership in the UMGC chapter of Upsilon Pi Epsilon, the international academic honor society for the computing and information disciplines, is available on p. 292.

Master of Science in Information Technology: Homeland Security Management Specialization

The graduate specialization in homeland security management can help prepare you to take a leadership role in protecting against natural and human-made threats to national security. Gain practical managerial skills in performing security risk assessments; planning for and managing operational recovery; and developing strategies to protect people, facilities, and information-dependent critical infrastructure.

What You'll Learn

Through your coursework, you will learn how to

- Tackle the five mission areas in homeland security as defined by the U.S. Department of Homeland Security
- Perform risk assessments
- Spot ethical and legal issues and navigate the complex legal and regulatory environment related to computer systems, applications, and networks

MASTER'S DEGREE PROGRAMS CURRICULA

- Protect telecommunications and information technology networks
- Analyze infrastructure protection, jurisdiction, and issues in technical areas such as interconnectivity and interoperability
- Plan and prepare for disaster response and recovery
- Apply knowledge about energy pipeline security, electrical grid security, cyber dependence, and SCADA systems, as well as risk methodologies applied to the energy industry
- Use high-tech management styles, including project planning, organizational structure, team building, and control mechanisms
- Manage each phase of the IT project life cycle, working within organizational and cost constraints, setting goals linked directly to stakeholder needs, and using proven management tools

Preparation Recommended for Success

RECOMMENDATIONS

If you lack a recent background in finance or accounting, you should take UCSP 620. If you lack a recent background in statistics, you should take UCSP 630. Taking UCSP 605 is recommended to help improve writing skills.

Vertical Pathway

If you completed your undergraduate degree at UMGC with coursework in homeland security, a vertical pathway between UMGC's undergraduate and graduate programs in that field allows you to reduce your total coursework for a related graduate degree by up to 6 credits (two courses). Details are on p. 20.

Degree Requirements

MS IN INFORMATION TECHNOLOGY: HOMELAND SECURITY MANAGEMENT SPECIALIZATION

	Credits
Required Core Courses	15
Required Specialization Courses	21
Total	36

INITIAL REQUIREMENT

(to be taken within the first 6 credits of study)

UCSP 615 Orientation to Graduate Studies at UMGC (0)

REQUIRED CORE COURSES

ITEC 610	Information Technology Foundations (3)
ITEC 625	Computer Systems Architecture (3)
ITEC 626	Information Systems Infrastructure (3)
ITEC 630	Information Systems Analysis, Modeling, and Design (3)
ITEC 640	Information Technology Project Management (3)

REQUIRED SPECIALIZATION COURSES

HSMN 610	Concepts in Homeland Security (3)
HSMN 625	Critical Infrastructures (3)
HSMN 630	Resilience Planning and Preparedness for Disaster Response and Recovery (3)
INFA 660	The Law, Regulation, and Ethics of Information Assurance (3)
BSBD 641	Biosecurity and Bioterrorism (3)
EMAN 620	Information Technology in Emergency Management (3)
HSMN 670	Seminar in Homeland Security (3)

COURSE SEQUENCING

- ITEC 610 must be taken in the first term of coursework.
- HSMN 610 must be taken as one of the first two specialization courses.
- HSMN 670 must be taken in your last semester.

Master of Science in Information Technology: Informatics Specialization

The informatics specialization gives you a strong foundation in all major categories of IT management, so you can take your career in any direction you choose. Develop advanced skills in networking, security, software development, databases, web design, and IT acquisitions to become a valuable asset to any industry.

What You'll Learn

Through your coursework, you will learn how to

- Design information systems, determine system requirements, understand modeling, make decisions, and develop and implement proposals
- Write system and software requirements, formal specification analyses, formal description reasonings, models of "standard" paradigms, and translations into formal notations

MASTER'S DEGREE PROGRAMS CURRICULA

- Manage emerging technologies such as cloud computing, BYOD, and virtualization
- Write successful website development plans
- Design for the web using Java and CGI scripts, as well as usability best practices
- Develop web benchmarks, standards for representing common media formats, compression algorithms, file format translation tools, and hardware requirements and standards
- Ensure and manage information security, including risk and vulnerability analysis, security planning, and security architecture
- Apply legal, ethical, and privacy considerations to information assurance decisions
- Master techniques for relational database design, query optimization, concurrency control, recovery, and integrity
- Learn various approaches to developing software using modern methods, including rapid application development and agile development, Scrum, extreme programming, Evolutionary Project Management, lean software development, test-driven development, feature-driven development, Crystal solutions, Rational Unified Process, and other Unified Process methods
- Apply management practices related to the acquisition of IT systems, components, and services, including enterprise strategic planning, financial planning and budgeting, and integration

Preparation Recommended for Success

RECOMMENDATIONS

Taking UCSP 605 is recommended to help improve writing skills.

Degree Requirements

MS IN INFORMATION TECHNOLOGY: INFORMATICS SPECIALIZATION

	Credits
Required Core Courses	15
Required Specialization Courses	21
Total	36

INITIAL REQUIREMENT

(to be taken within the first 6 credits of study)

UCSP 615 Orientation to Graduate Studies at UMGC (0)

REQUIRED CORE COURSES

ITEC 610	Information Technology Foundations (3)
ITEC 625	Computer Systems Architecture (3)
ITEC 626	Information Systems Infrastructure (3)
ITEC 630	Information Systems Analysis, Modeling, and Design (3)
ITEC 640	Information Technology Project Management (3)

REQUIRED SPECIALIZATION COURSES

SWEN 603	Modern Software Methodologies (3)
DBST 651	Relational Database Systems (3)
SWEN 645	Software Requirements (3)
INFA 610	Foundations of Information Security and Assurance (3)
IMAT 637	IT Acquisitions Management (3)
IMAT 639	Internet Multimedia Applications (3)
IMAT 670	Contemporary Topics in Informatics (3)

COURSE SEQUENCING

- ITEC 610 must be taken in the first term of coursework.
- You must complete 6 credits of core coursework before taking the first specialization course.
- Currently, IMAT 670 is not available during the summer term.

Honor Society

Information on eligibility for membership in the UMGC chapter of Upsilon Pi Epsilon, the national academic honor society for the computing and information disciplines, is available on p. 292.

Master of Science in Information Technology: Information Assurance Specialization

The graduate specialization in information assurance provides you with a practical understanding of the principles of data protection, cybersecurity, and computer forensics. Perfect for midcareer professionals or career changers, the information assurance specialization offers sought-after skills in network and internet security, intrusion detection and prevention, and cryptology, while also strengthening your core IT knowledge and project management abilities.

UMGC was named a National Center of Academic Excellence in Cyber Defense Education by the National Security Agency and the Department of Homeland Security.

MASTER'S DEGREE PROGRAMS CURRICULA

What You'll Learn

Through your coursework, you will learn how to

- Secure information using knowledge of symmetric and asymmetric keys, protocols for exchanging secure data (including the Data Encryption Standard and the Advanced Encryption Standard), and other cryptographic methods and cryptanalysis tools
- Protect networks using risk analysis, defense models, security policy development, authentication and authorization controls, firewalls, packet filtering, virtual private networks (VPNs), and wireless network security
- Respond to attacks with damage assessments, data forensics, attack tracing, and system recovery processes for continuity of operation
- Identify system vulnerabilities and attack patterns and solve problems with intrusion detection tactics
- Navigate ethics, relevant laws, regulations, policies, and standards
- Lead successful teams with advanced project management skills

INDUSTRY CERTIFICATION

This program is designed to help prepare you for the following certification exams, listed in alphabetical order:

- CompTIA Security+
- (ISC)² Certified Information Systems Security Professional (CISSP)
- (ISC)² Systems Security Certified Practitioner (SSCP)

Preparation Recommended for Success

EXPECTATIONS

You are expected to have some familiarity with Microsoft Excel. You are also expected to have some background in information technology. This background may be acquired through noncredit preparatory coursework, listed below.

RECOMMENDATIONS

If you do not have previous coursework or experience in programming, you are strongly advised to first enroll in UCSP 635 and UCSP 636 to gain the appropriate foundation. Taking UCSP 605 is recommended to help improve writing skills.

Degree Requirements

MS IN INFORMATION TECHNOLOGY: INFORMATION ASSURANCE SPECIALIZATION

	Credits
Required Core Courses	15
Required Specialization Courses	21
Total	36

INITIAL REQUIREMENT

(to be taken within the first 6 credits of study)

UCSP 615 Orientation to Graduate Studies at UMGC (0)

REQUIRED CORE COURSES

ITEC 610	Information Technology Foundations (3)
ITEC 625	Computer Systems Architecture (3)
ITEC 626	Information Systems Infrastructure (3)
ITEC 630	Information Systems Analysis, Modeling, and Design (3)
ITEC 640	Information Technology Project Management (3)

REQUIRED SPECIALIZATION COURSES

INFA 610	Foundations of Information Security and Assurance (3)
INFA 620	Network and Internet Security (3)
INFA 630	Intrusion Detection and Intrusion Prevention (3)
INFA 640	Cryptology and Data Protection (3)
INFA 650	Computer Forensics (3)
INFA 660	The Law, Regulation, and Ethics of Information Assurance (3)
INFA 670	Information Assurance Capstone (3)

COURSE SEQUENCING

- ITEC 610 must be taken in the first term of coursework.
- INFA 610 must be taken as the first specialization course.
- You must complete all other specialization coursework before taking INFA 670.

MASTER'S DEGREE PROGRAMS

CURRICULA

Technology Requirements

The information assurance specialization requires that you use a computer with the following:

- Microphone and speakers or headset with microphone or equivalent device(s)
- 5 GB (gigabytes) of free hard drive space
- 4 GB RAM or higher
- A high-speed internet connection
- Computer processor (Intel Pentium 4 or AMD Athlon 64) running at speeds of at least 1 GHz
- Windows 8.1 or Mac OS X 10.6 or higher for an operating system (Linux operating systems can also be used but require more technical knowledge from the user.)

Note: The higher the processor speed of your computer (e.g., 2.4–3.4 GHz), the larger the amount of available memory (e.g., 4–12 GB), and the larger the amount of available hard drive space (e.g., 5–20 GB), the better your computer will perform and the smoother your experience will be.

Program Recognition

UMGC's MS in Information Technology with a specialization in information assurance has been designated a Professional Science Master's degree program through the Council of Graduate Schools.

Honor Society

Information on eligibility for membership in the UMGc chapter of Upsilon Pi Epsilon, the national academic honor society for the computing and information disciplines, is available on p. 292.

Master of Science in Information Technology: Project Management Specialization

The project management specialization allows you to gain advanced IT management skills while building expertise for project management certification. Your specialization courses include project risk management, project procurement management, and advanced project methods, while your core IT courses give you the tools you need to take on leadership roles in today's technology-based work environments.

What You'll Learn

Through your coursework, you will learn how to

- Initiate, plan, track, and close projects
- Manage the schedule of a complex project on time and within budget, solving conflicts as they arise

- Perform quantitative analyses and manage risks involved in a complex project
- Apply advanced knowledge in computer systems architecture
- Analyze, design, and implement information systems
- Plan projects, build teams, and create and modify effective control mechanisms

INDUSTRY CERTIFICATION

This program is designed to help prepare you for the following certification exams, listed in alphabetical order:

- Certified Associate in Project Management (CAPM)
- Project Management Professional (PMP)

Preparation Recommended for Success

RECOMMENDATIONS

Taking UCSP 605 is recommended to help improve writing skills.

Academic Relationship

Completing this program earns you the project management education hours required to sit for the Project Management Professional (PMP) Credential Examination or the Certified Associate in Project Management (CAPM) Exam. If you are already certified as a Project Management Professional by the Project Management Institute and begin study for the master's degree within five years of earning certification, you may receive credit for PMAN 634 Foundations of Project Management. Advisors can provide more information.

Degree Requirements

MS IN INFORMATION TECHNOLOGY: PROJECT MANAGEMENT SPECIALIZATION

	Credits
Required Core Courses	15
Required Specialization Courses	21
Total	36

INITIAL REQUIREMENT

(to be taken within the first 6 credits of study)

UCSP 615 Orientation to Graduate Studies at UMGc (0)

MASTER'S DEGREE PROGRAMS CURRICULA

REQUIRED CORE COURSES

ITEC 610	Information Technology Foundations (3)
ITEC 625	Computer Systems Architecture (3)
ITEC 626	Information Systems Infrastructure (3)
ITEC 630	Information Systems Analysis, Modeling, and Design (3)
ITEC 640	Information Technology Project Management (3)

REQUIRED SPECIALIZATION COURSES

PMAN 634	Foundations of Project Management (3)
PMAN 635	Quantitative Methods in Project Management (3)
PMAN 637	Project Risk Management (3)
PMAN 638	Project Communication Management (3)
PMAN 639	Project Quality Management (3)
PMAN 641	Project Procurement Management (3)
PMAN 650	Financial and Strategic Management of Projects (3)

COURSE SEQUENCING

- ITEC 610 must be taken in the first term of coursework.
- PMAN 634 is prerequisite to all other PMAN courses and must be taken as the first specialization course.
- ITEC 640 (or an approved course in finance) and MGMT 650 (or an approved course in statistics) must be taken before PMAN 635.
- PMAN 635 must be taken before PMAN 637, PMAN 639, and PMAN 650.

Program Recognition

UMGC's master's degree programs with project management specializations are recognized by the Global Accreditation Center (GAC) of the Project Management Institute (PMI).

Honor Society

Information on eligibility for membership in the UMGC chapter of Upsilon Pi Epsilon, the national academic honor society for the computing and information disciplines, is available on p. 292.

Master of Science in Information Technology: Software Engineering Specialization

The software engineering specialization provides software developers with advanced software methodology, design, and coding techniques. You'll learn aspect-oriented programming, object-oriented programming, and the principles and techniques to lead a software development team.

In this specialization, you'll gain hands-on experience performing all functions of building software and develop job-relevant expertise in implementing large software engineering projects within cost and on schedule. The software engineering courses include usability engineering, software design and implementation, software verification and validation, and more.

What You'll Learn

Through your coursework, you will learn how to

- Write a software requirements document
- Design software using UML models
- Develop and test software
- Apply advanced knowledge in computer systems architecture
- Manage the schedule of a complex project on time and within budget, solving conflicts as they arise
- Analyze, design, and implement information systems
- Plan projects, build teams, and create and modify effective control mechanisms

Preparation Recommended for Success

EXPECTATIONS

Ideally, you should have a degree and/or professional experience in software development and programming languages. This background may be acquired through noncredit preparatory coursework, listed below.

RECOMMENDATIONS

If you have not had any recent programming coursework or have experience in old programming languages such as COBOL or RPG, you are strongly encouraged to take UCSP 635 and UCSP 636 before taking any SWEN courses. Taking UCSP 605 is recommended to help improve writing skills.

Degree Requirements

MS IN INFORMATION TECHNOLOGY: SOFTWARE ENGINEERING SPECIALIZATION

	Credits
Required Core Courses	9
Required Specialization Courses	27
Total	36

MASTER'S DEGREE PROGRAMS CURRICULA

INITIAL REQUIREMENT

(to be taken within the first 6 credits of study)

UCSP 615 Orientation to Graduate Studies at UMGC (0)

REQUIRED CORE COURSES

- ITEC 625 Computer Systems Architecture (3)
ITEC 630 Information Systems Analysis, Modeling, and Design (3)
ITEC 640 Information Technology Project Management (3)

REQUIRED SPECIALIZATION COURSES

- SWEN 603 Modern Software Methodologies (3)
DBST 651 Relational Database Systems (3)
SWEN 646 Software Design and Implementation (3)
SWEN 656 Advanced Software Design and Implementation (3)
SWEN 645 Software Requirements (3)
SWEN 647 Software Verification and Validation (3)
SWEN 651 Usability Engineering (3)
SWEN 661 User Interface Implementation (3)
SWEN 670 Software Engineering Project (3)

COURSE SEQUENCING

SWEN 670 must be taken in the last term of enrollment.

Honor Society

Information on eligibility for membership in the UMGC chapter of Upsilon Pi Epsilon, the international honor society for the computing and information disciplines, is available on p. 292.

Master of Science in Information Technology: Systems Engineering Specialization

The systems engineering specialization can help you apply traditional and modern life-cycle models, techniques, and tools in the specification, design, development, and deployment of complex systems. The specialization is designed for midcareer professionals with a technical background who are seeking to enhance their skills in systems engineering theory and practice.

You'll study a variety of cases across different application domains to learn the wide scope of systems concepts. Courses include requirements engineering, system design and development, model-based systems engineering, system integration and testing, system engineering management, and more.

What You'll Learn

Through your coursework, you will learn how to

- Organize and manage a systems engineering team
- Apply a wide variety of domestic and international standards to systems engineering practice
- Use various computer-aided design and testing tools

INDUSTRY CERTIFICATION

This program is designed to help prepare you for the International Council on Systems Engineering (INCOSE) certification exams.

Preparation Recommended for Success

EXPECTATIONS

Ideally, you should have a degree and/or professional experience in a technical discipline such as engineering or computer science.

RECOMMENDATIONS

Taking UCSP 605 is recommended to help improve writing skills.

Degree Requirements

MS IN INFORMATION TECHNOLOGY: SYSTEMS ENGINEERING SPECIALIZATION

	Credits
Required Core Courses	12
Required Specialization Courses	24
Total	36

INITIAL REQUIREMENT

(to be taken within the first 6 credits of study)

UCSP 615 Orientation to Graduate Studies at UMGC (0)

REQUIRED CORE COURSES

- ITEC 610 Information Technology Foundations (3)
ITEC 625 Computer Systems Architecture (3)
ITEC 626 Information Systems Infrastructure (3)
ITEC 630 Information Systems Analysis, Modeling, and Design (3)

MASTER'S DEGREE PROGRAMS CURRICULA

REQUIRED SPECIALIZATION COURSES

SYSE 610	Systems Engineering Overview (3)
SYSE 620	Requirements Engineering (3)
SYSE 625	Model-Based Systems Engineering (3)
SYSE 630	System Design and Development (3)
SYSE 640	System Integration and Test (3)
SYSE 650	Design Considerations (3)
SYSE 660	Systems Engineering Management (3)
SYSE 670	Systems Engineering Capstone (3)

COURSE SEQUENCING

- ITEC 610 must be taken in the first term of coursework.
- You must complete 6 credits of core coursework before beginning specialization coursework.
- Specialization courses must be taken in the order listed.
- You must take SYSE 670 in your final term.

Honor Society

Information on eligibility for membership in the UMGC chapter of Upsilon Pi Epsilon, the international honor society for the computing and information disciplines, is available on p. 292.

Instructional Technology

You may earn a Master of Education (MEd) in Instructional Technology.

Master of Education in Instructional Technology

In the instructional technology program, you'll learn advanced skills in curriculum and instruction, technology integration, and leadership in pre-K through grade 12 education. This program is designed to help you develop expertise in current and emerging instructional technologies; gain a deep understanding of the role of technology in the contemporary school; and lead change efforts at the classroom, school, and district levels to improve student achievement.

Note: The MEd program does not lead to teacher certification in Maryland.

What You'll Learn

Through your coursework, you will learn how to

- Integrate current and emerging technologies into the curriculum to strengthen and transform teaching and learning
- Use technology to create and cultivate your personal learning network

- Extend your classroom with blended and online learning experiences
- Integrate and manage mobile learning environments
- Assess the effectiveness of technology to support student learning
- Create multimedia and web-based products that support instruction
- Develop standards-based (Common Core), technology-supported lessons
- Provide innovative professional development experiences for teachers and other educators
- Advocate for and lead technology initiatives

Preparation Recommended for Success

EXPECTATIONS

Professional experience in teaching in P-12 schools is expected. If you lack teaching experience, you may want to choose another of UMGC's education-related graduate programs.

RECOMMENDATIONS

Taking UCSP 605 is recommended to help improve writing skills.

Degree Requirements

MEd IN INSTRUCTIONAL TECHNOLOGY

	Credits
Required Core Courses	30
Required Capstone Course	3
Total	33

INITIAL REQUIREMENT

(to be taken within the first 6 credits of study)

UCSP 615 Orientation to Graduate Studies at UMGC (0)

REQUIRED CORE COURSES

EDTC 600	Foundations of Technology in Teaching and Learning (3)
EDTC 605	Teaching Information and Media Literacies in the Digital World (3)
EDTC 610	Web-Based Teaching and Learning: Design and Pedagogy (3)

MASTER'S DEGREE PROGRAMS CURRICULA

EDTC 615	Using Technology for Instructional Improvement: Research, Data, and Best Practices (3)
EDTC 620	Technology in K–12 Education: Synchronous, Asynchronous, and Multimedia Technologies (3)
EDTC 625	Hardware and Software in Instructional Development (3)
EDTC 630	Administration of Technology Initiatives: Planning, Budgeting, and Evaluation (3)
EDTC 640	Leading Technology Change in Schools (3)
EDTC 645	Integration of Technology: Global Perspectives (3)
EDTC 650	Teaching and Learning in K–12 Virtual Schools (3)

REQUIRED CAPSTONE COURSE

EDTC 670	Integrative Capstone Project (3)
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COURSE SEQUENCING

- The first nine courses in the program must be taken in the order listed; sequential courses may be taken concurrently.
- The first nine courses in the program must be completed before you take EDTC 670.
- Currently, EDTC 670 is not available during the summer term; availability of the capstone course is provided online at umgc.edu/schedule.

Criteria for Program Progression

To maintain national professional accreditation, the MEd program requires that you earn grades of 80 percent (B) or better on major assignments in certain courses—namely EDTC 600, EDTC 615, EDTC 630, EDTC 640, and EDTC 645, which are offered before specific transition points in the program—to move forward in the program.

Technology Requirements

As a student in the MEd degree or Instructional Technology Integration certificate program, you are required to purchase a one-time \$139 subscription (good for seven years) to Tk20 HigherEd before your first class. Tk20 is a comprehensive assessment and management system that supports all education students at UMGC. You may also need access to a webcam/microphone for certain assignments.

Program Accreditation

The graduate education programs at University of Maryland Global Campus have been accredited by the National Council for Accreditation of Teacher Education (now the Council for the Accreditation of Educator Preparation, caepnet.org). This accreditation covers the Master of Arts in Teaching program for initial

teacher preparation and the Master of Education in Instructional Technology program at UMGC. With this accreditation, the Master of Education program has also earned national recognition by its professional association, the International Society for Technology in Education (ISTE). However, the accreditation does not include individual education courses that the institution offers to P–12 educators for professional development, relicensure, or other purposes.

Learning Design and Technology

You may earn a Master of Science in Learning Design and Technology.

Master of Science in Learning Design and Technology

The graduate program in learning design and technology can help you gain the skills and competencies you need to use emerging technologies, learning analytics, and learning theory to design adaptive and personalized online learning experiences. You can explore, develop, and integrate digital media, new pedagogical approaches, and online interactive resources to give students greater access to education and prepare them for success.

Note: The MS in Learning Design and Technology program does not lead to teacher certification in Maryland.

What You'll Learn

Through your coursework, you will learn how to

- Apply learning sciences to design and implement transformative, personalized online and hybrid learning experiences
- Identify and apply learning analytics, current research, and theory to optimize the online learning environment
- Analyze data and create visualization models to inform learning design
- Create authentic assessment strategies to evaluate online learning
- Select, evaluate, and design media and technologies to support learning online
- Communicate effectively online and in print using visual, oral, and written formats
- Initiate and lead learning design projects
- Evaluate legal and ethical issues and develop appropriate strategies for online learning projects
- Use social media tools to create a personal learning network for ongoing professional development

MASTER'S DEGREE PROGRAMS CURRICULA

Preparation Recommended for Success

EXPECTATIONS

Both a background in teaching, education, or professional development and basic experience in word processing are expected.

RECOMMENDATIONS

Taking ASC 601 is recommended to help improve writing skills.

Degree Requirements

MS IN LEARNING DESIGN AND TECHNOLOGY

	Credits
Foundation Course	6
Required Core Courses	30
Total	36

FOUNDATION COURSE

DCL 600 Decisive Thinking, Communicating, and Leading (6)

REQUIRED CORE COURSES

LDT 610 Learning Design and Digital Pedagogy (6)

LDT 620 Learning Design, Media, and Emerging Technologies (6)

LDT 630 Learning Design and Data Analytics (6)

LDT 640 Advanced Practicum in Learning Design (6)

LDT 670 Learning Design Seminar (6)

COURSE SEQUENCING

Courses must be taken in the order listed.

Criteria for Program Progression

You must complete each course with a grade of B or better to advance to the next course. (The grade of C is not available for these courses.) Your course syllabus will explain options for and consequences of requesting an Incomplete.

Management

You may earn a Master of Science in Management, with a specialization in any one of the following areas:

- Accounting
- Acquisition and Supply Chain Management
- Criminal Justice Management
- Emergency Management
- Financial Management
- Homeland Security Management
- Human Resource Management
- Information Systems and Services
- Intelligence Management
- Interdisciplinary Studies in Management
- Marketing
- Nonprofit and Association Management
- Project Management

Master of Science in Management: Accounting Specialization

The graduate accounting specialization can help you move toward a position as a comptroller, managing partner, or senior accountant. Ideal for midcareer professionals, the accounting specialization teaches you the skills to communicate financial information with high-level decision makers, as well as the advanced accounting knowledge that every business needs.

What You'll Learn

Through your coursework, you will learn how to

- Assist in developing strategic plans
- Assist in the decision-making process required of top managers
- Communicate effectively with top-level executives and diverse populations
- Design and build an accounting information system
- Guide management in making effective decisions regarding financial planning
- Prepare and analyze financial statements
- Prepare individual and corporate federal income tax returns
- Serve in leadership roles
- Serve on an internal audit team

MASTER'S DEGREE PROGRAMS CURRICULA

INDUSTRY CERTIFICATION

This program is designed to help prepare you for the following certification exams, listed in alphabetical order:

- Accredited Tax Preparer (ATP)
- Certified Internal Auditor (CIA)
- Certified Management Accountant (CMA)
- Certified Public Accountant (CPA)*
- Chartered Global Management Accountant (CGMA)
- Enrolled Agent (EA)

Academic Preparation

Before enrolling in any graduate accounting course, you must have either

- Completed 15 credits of undergraduate accounting coursework, with a grade of C or better in each course. Upon submission of an official transcript, you may be accepted into the degree program with fewer than the required 15 credits of undergraduate accounting coursework, but you must complete that coursework before enrolling in your first graduate accounting course.
- Earned a Certified Public Accountant (CPA) license as determined by a State Board of Accountancy. Upon submission of evidence and verification of your having earned a CPA license, you may enroll in a graduate accounting course.

Preparation Recommended for Success

EXPECTATIONS

You are expected to have familiarity with Microsoft Excel.

RECOMMENDATIONS

If you lack a recent background in finance or accounting, you should take the noncredit course UCSP 620 before ACCT 610 and MGMT 640. If you lack a recent background in statistics, you should take UCSP 630 before MGMT 650. Taking UCSP 605 is recommended to help improve writing skills.

Vertical Pathway

If you completed your undergraduate degree at UMGC with coursework in accounting, a vertical pathway between UMGC's undergraduate and graduate degree programs in that field allows you to reduce your total coursework for a related graduate degree by up to 6 credits (two courses). Details are on p. 19.

Degree Requirements

MS IN MANAGEMENT: ACCOUNTING SPECIALIZATION

	Credits
Required Core Courses	12
Specialization Courses	21
Required Capstone Course	3
Total	36

INITIAL REQUIREMENT

(to be taken within the first 6 credits of study)

UCSP 615 Orientation to Graduate Studies at UMGC (0)

REQUIRED CORE COURSES

MGMT 630 Organizational Theory and Behavior (6)

MGMT 640 Financial Decision Making for Managers (3)

MGMT 650 Statistics for Managerial Decision Making (3)

SPECIALIZATION COURSES

Complete the following five courses:

ACCT 610 Financial Accounting (3)

ACCT 611 Management Accounting (3)

ACCT 613 Federal Income Taxation (3)

ACCT 618 Accounting Information Systems (3)

ACCT 628 Auditing (3)

Take two of the following for a total of 6 credits:

ACCT 625 Government and Not-for-Profit Accounting (3)

ACCT 630 Fraud Examination (3)

ACCT 635 Accounting Ethics (3)

ACCT 640 International Accounting (3)

REQUIRED CAPSTONE COURSE

MGMT 670 Strategic Management Capstone (3)

ALTERNATE COURSES

MGMT 610 Organizational Theory (3) and MGMT 615 Intercultural Communication and Leadership (3) may be taken instead of MGMT 630.

* Requirements for CPA certification vary from state to state. See p. 320 or umgc.edu/professional-licensure for more information.

MASTER'S DEGREE PROGRAMS CURRICULA

COURSE SEQUENCING

- MGMT 630 (or MGMT 610) must be taken within the first 6 credits.
- ACCT 610 is prerequisite to all other accounting courses.
- ACCT 628 should be taken before ACCT 630.
- MGMT 640 should not be attempted simultaneously with MGMT 650.
- You must complete 24 credits of program coursework, including all core courses, before enrolling in MGMT 670.

Master of Science in Management: Acquisition and Supply Chain Management Specialization

The acquisition and supply chain management specialization is designed for midcareer professionals but is also suitable for newcomers. You'll build a foundation in the strategic and operational aspects of the end-to-end supply chain and procurement functions. In this career-focused specialization, you'll also learn best practices to use in your current role.

What You'll Learn

Through your coursework, you will learn how to

- Apply the legal structure for public and private acquisition processes
- Use technology effectively to establish sustainable supply chains that support product and service delivery
- Apply knowledge of efficient contract management processes throughout the acquisition life cycle
- Explain how acquisition and supply chain management will evolve through the next decade
- Interpret the Federal Acquisitions Regulation Universal Commercial Code as it relates to acquisitions and American Bar Association Model Procurement Code for State and Local Governments
- Plan, conduct, and manage negotiated procurements
- Perform cost analysis preparations and understand all categories of costs, including profit
- Apply strategic purchasing and logistics methodologies
- Conduct supply chain management case studies and simulations of managing material flows to optimize supply chains for efficiency

INDUSTRY CERTIFICATION

This program is designed to help prepare you for certifications from the following organizations, listed in alphabetical order:

- APICS
- Council of Supply Chain Management Professionals (CSCMP)
- Defense Acquisition University
- National Contract Management Association (NCMA)

Preparation Recommended for Success

RECOMMENDATIONS

If you lack a recent background in finance or accounting, you should take UCSP 620 before MGMT 640. If you lack a recent background in statistics, you should take UCSP 630 before MGMT 650. Taking UCSP 605 is recommended to improve writing skills.

Degree Requirements

MS IN MANAGEMENT: ACQUISITION AND SUPPLY CHAIN MANAGEMENT SPECIALIZATION

	Credits
Required Core Courses	12
Required Specialization Courses	21
Required Capstone Course	3
Total	36

INITIAL REQUIREMENT

(to be taken within the first 6 credits of study)

UCSP 615 Orientation to Graduate Studies at UMGC (0)

REQUIRED CORE COURSES

MGMT 630 Organizational Theory and Behavior (6)
MGMT 640 Financial Decision Making for Managers (3)
MGMT 650 Statistics for Managerial Decision Making (3)

MASTER'S DEGREE PROGRAMS CURRICULA

REQUIRED SPECIALIZATION COURSES

- ASCM 626 Purchasing and Materials Management (3)
- ASCM 627 Legal Aspects of Contracting (3)
- ASCM 628 Contract Pricing and Negotiations (3)
- ASCM 629 Strategic Purchasing and Logistics (3)
- ASCM 630 Commercial Transactions in a Technological Environment: Law, Management, and Technology (3)
- ASCM 631 Integrative Supply Chain Management (3)
- ASCM 632 Contemporary Logistics (3)

REQUIRED CAPSTONE COURSE

- MGMT 670 Strategic Management Capstone (3)

ALTERNATE COURSES

- MGMT 610 Organizational Theory (3) and MGMT 615 Intercultural Communication and Leadership (3) may be taken instead of MGMT 630.
- ASCM 650 Legal Aspects of Contracting and Commercial Transactions (6) may be taken instead of ASCM 627 and ASCM 630.

COURSE SEQUENCING

- MGMT 630 (or MGMT 610) must be taken within the first 6 credits.
- ASCM 626 should be taken as the first specialization course.
- ASCM 629 is prerequisite to ASCM 631.
- MGMT 640 should not be attempted simultaneously with MGMT 650.
- You must complete 24 credits of program coursework, including all core courses, before enrolling in MGMT 670.
- Specialization courses should be taken in the order listed.

Master of Science in Management: Criminal Justice Management Specialization

In the criminal justice management specialization, you'll obtain advanced knowledge of crime prevention, law enforcement, investigative forensics, and crisis management—as well as strong skills in business management. This specialization can help you learn to effectively manage large teams, departments, and bureaus across the criminal justice profession.

What You'll Learn

Through your coursework, you will learn how to

- Design criminal justice programs
- Analyze threats and assess risks
- Conduct vulnerability studies
- Apply legal knowledge to criminal justice management
- Lead and manage organizations
- Communicate, report, and write professionally and effectively

Preparation Recommended for Success

RECOMMENDATIONS

If you lack a recent background in finance or accounting, you should take UCSP 620 before MGMT 640. If you lack a recent background in statistics, you should take UCSP 630 before MGMT 650. Taking UCSP 605 is recommended to help improve writing skills.

Vertical Pathway

If you completed your undergraduate degree at UMGC with coursework in criminal justice, a vertical pathway between UMGC undergraduate and graduate programs in that field allows you to reduce your total coursework for the related graduate degree by up to 6 credits (two courses). Details are on p. 20.

Degree Requirements

MS IN MANAGEMENT: CRIMINAL JUSTICE MANAGEMENT SPECIALIZATION

	Credits
Required Core Courses	12
Required Specialization Courses	21
Required Capstone Course	3
Total	36

INITIAL REQUIREMENT

(to be taken within the first 6 credits of study)

- UCSP 615 Orientation to Graduate Studies at UMGC (0)

MASTER'S DEGREE PROGRAMS

CURRICULA

REQUIRED CORE COURSES

- MGMT 630 Organizational Theory and Behavior (6)
MGMT 640 Financial Decision Making for Managers (3)
MGMT 650 Statistics for Managerial Decision Making (3)

REQUIRED SPECIALIZATION COURSES

- CJMS 600 Critical Analysis of the Criminal Justice System (3)
CJMS 610 Perspectives in Law Enforcement Management (3)
CJMS 620 Issues in Correctional Administration (3)
CJMS 630 Seminar in Security Management (3)
CJMS 640 Criminal Justice Intelligence Systems and Approaches (3)
CJMS 650 Legal Aspects Within the Criminal Justice System (3)
CJMS 660 Issues in Criminal Justice Leadership (3)

REQUIRED CAPSTONE COURSE

- MGMT 670 Strategic Management Capstone (3)

ALTERNATE COURSES

MGMT 610 Organizational Theory (3) and MGMT 615 Inter-cultural Communication and Leadership (3) may be taken instead of MGMT 630.

COURSE SEQUENCING

- MGMT 630 (or MGMT 610) must be taken within the first 6 credits.
- MGMT 640 should not be attempted simultaneously with MGMT 650.
- Specialization courses should be taken in the order listed.
- CJMS 600 must be taken as the first specialization course.
- CJMS 660 must be taken after all specialization and core courses (except MGMT 670).
- You must complete 24 credits of program coursework, including all core courses, before enrolling in MGMT 670.

Master of Science in Management: Emergency Management Specialization

The emergency management specialization helps you master the five mission areas of the National Preparedness Goal (prevention, protection, mitigation, response, and recovery) and to take a leadership role in protecting organizations against major crises and disasters. You can gain practical managerial skills in performing security risk assessments; planning and managing prevention,

deterrence, protection, response, and operational recovery; and developing strategies to secure people and critical assets from natural or human-made threats.

Perfect for midcareer professionals, the emergency management specialization features coursework in financial analysis for managers, organizational theory, vulnerability assessments, IT in emergency management, and crisis communication, as well as courses that strengthen your core knowledge of management skills. Previous field experience in emergency management is not required for the program.

What You'll Learn

Through your coursework, you will learn how to

- Communicate clearly, both orally and in writing
- Apply logical processes to formulate clear, defensible ideas and draw conclusions based on ethical implications
- Use mathematical information, operations, and quantitative analyses to solve problems and inform decision making
- Lead, facilitate, and collaborate with a variety of individuals and diverse teams to achieve organizational objectives
- Describe current and emerging threats, including terrorism and technological and natural disasters; the social, cultural, psychological, political, and operational dynamics of threats; and the evolution and basic principles of critical infrastructure protection, processes, and techniques
- Trace the history of various incidents and threats and assess the risks and vulnerabilities associated with each
- Assess threats and risks for facilities, entities, and communities and perform impact analysis
- Define types of incidents and threats, the historical phases and dimensions of technical systems, and standards that frame the operating environment
- Demonstrate a range of project management skills, from program to human resource management to financial, data, and information management
- Write, communicate, and implement emergency operations plans
- Construct discussion-based and operations-based exercises according to national, state, or local requirements and the principles of the Homeland Security Exercise and Evaluation Program and the National Standard Exercise Curriculum, in response to an after-action review or as a test of core capabilities
- Discover and use specific applications of advanced technologies, systems, and services for protection, response, recovery, and resilience, as well as disaster preparedness exercises and developmental and operational scenarios

MASTER'S DEGREE PROGRAMS CURRICULA

- Understand the laws, authorities, regulations, policies, and ethical concerns related to emergency management issues and operations and the importance of public stewardship and science-based approaches
- Interpret data and determine solutions based on data; resources; and the legal, organizational, and social operating environment
- Understand the principles of leading, motivating, and managing others within an organization to establish and achieve strategic and operational goals

INDUSTRY CERTIFICATION

This program is designed to help prepare you for the Certified Emergency Manager (CEM) exam.

Preparation Recommended for Success

RECOMMENDATIONS

If you lack a recent background in finance or accounting, you should take UCSP 620 before MGMT 640. If you lack a recent background in statistics, you should take UCSP 630 before MGMT 650. Taking UCSP 605 is recommended to help improve writing skills.

Vertical Pathway

If you completed your undergraduate degree at UMGC with coursework in emergency management, a vertical pathway between UMGC undergraduate and graduate programs in that field allows you to reduce your total coursework for the related graduate degree by up to 6 credits (two courses). Details are on p. 20.

Degree Requirements

MS IN MANAGEMENT: EMERGENCY MANAGEMENT SPECIALIZATION

	Credits
Required Core Courses	12
Required Specialization Courses	21
Required Capstone Course	3
Total	36

INITIAL REQUIREMENT

(to be taken within the first 6 credits of study)

UCSP 615 Orientation to Graduate Studies at UMGC (0)

REQUIRED CORE COURSES

- MGMT 630 Organizational Theory and Behavior (6)
- MGMT 640 Financial Decision Making for Managers (3)
- MGMT 650 Statistics for Managerial Decision Making (3)

REQUIRED SPECIALIZATION COURSES

- EMAN 600 Comprehensive Crisis and Emergency Management (3)
- EMAN 610 Hazard Risk and Vulnerability Assessment (3)
- EMAN 620 Information Technology in Emergency Management (3)
- HSMN 610 Concepts in Homeland Security (3)
- HSMN 630 Resilience Planning and Preparedness for Disaster Response and Recovery (3)
- EMAN 630 Crisis Communication for Emergency Managers (3)
- EMAN 670 Seminar in Emergency Management Leadership (3)

REQUIRED CAPSTONE COURSE

- MGMT 670 Strategic Management Capstone (3)

ALTERNATE COURSES

MGMT 610 Organizational Theory (3) and MGMT 615 Intercultural Communication and Leadership (3) may be taken instead of MGMT 630.

COURSE SEQUENCING

- MGMT 630 (or MGMT 610) must be taken within the first 6 credits.
- MGMT 640 should not be attempted simultaneously with MGMT 650.
- EMAN 600 must be taken as one of the first two specialization courses.
- EMAN 670 must be taken in your last semester.
- You must complete 24 credits of program coursework, including all core courses, before enrolling in MGMT 670.

Master of Science in Management: Financial Management Specialization

The financial management specialization provides you with solid management skills that are essential to the core functions of every organization. This program offers you the tools to make high-level decisions that can impact an organization's current operations and financial future.

MASTER'S DEGREE PROGRAMS

CURRICULA

What You'll Learn

Through your coursework, you will learn how to

- Manage your organization's current financial operations (cash, inventory, accounts receivable policy, payables, short-term loans, etc.)
- Make long-term financial decisions, such as evaluating and selecting capital investments; financing capital requirements; taking a company public; navigating mergers and acquisitions; and bankruptcy/liquidation
- Incorporate international environments and opportunities into your planning
- Manage costs and risks and evaluate investments using industry software
- Perform financial analysis and modeling
- Make strategic management decisions to solve operational problems.

INDUSTRY CERTIFICATION

This program is designed to help prepare you for the following certification exams, listed in alphabetical order:

- Accredited Valuation Analyst (AVA)
- Certified Economic Policy Analyst (CEPA)
- Certified Financial Examiner (CFEx)
- Certified Government Financial Manager (CGFM)
- Certified Healthcare Financial Professional (CHFP)
- Certified Risk Professional (CRP)
- Certified Treasury Professional (CTP)
- Certified Valuation Analyst (CVA)
- Chartered Asset Manager (CAM)
- Chartered Economist (ChE)
- Chartered Financial Analyst (CFA)
- Chartered Market Analyst (CMA)
- Chartered Portfolio Manager (CPM)
- Chartered Trust and Estate Planner (CTEP)
- Chartered Wealth Manager (CWM)
- Financial Risk Manager (FRM)
- Master Financial Manager (MFM)
- Master Financial Professional (MFP)
- Registered Business Analyst (RBA)

Preparation Recommended for Success

RECOMMENDATIONS

If you lack a recent background in finance or accounting, you should take UCSP 620 before MGMT 640. If you lack a recent background in statistics, you should take UCSP 630 before MGMT 650. Taking UCSP 605 is recommended to improve writing skills.

Degree Requirements

MS IN MANAGEMENT: FINANCIAL MANAGEMENT SPECIALIZATION

	Credits
Required Core Courses	12
Required Specialization Courses	21
Required Capstone Course	3
Total	36

INITIAL REQUIREMENT

(to be taken within the first 6 credits of study)

UCSP 615 Orientation to Graduate Studies at UMGC (0)

REQUIRED CORE COURSES

MGMT 610 Organizational Theory (3)

MGMT 615 Intercultural Communication and Leadership (3)

MGMT 640 Financial Decision Making for Managers (3)

MGMT 650 Statistics for Managerial Decision Making (3)

REQUIRED SPECIALIZATION COURSES

FIN 610 Financial Management in Organizations (3)

FIN 615 Financial Analysis and Modeling (3)

FIN 620 Long-Term Financial Management (3)

FIN 630 Investment Valuation (3)

FIN 640 Multinational Financial Management (3)

FIN 645 Behavioral Finance (3)

FIN 660 Strategic Financial Management (3)

REQUIRED CAPSTONE COURSE

MGMT 670 Strategic Management Capstone (3)

MASTER'S DEGREE PROGRAMS CURRICULA

COURSE SEQUENCING

- MGMT 610 must be taken within the first 6 credits.
- MGMT 640 is prerequisite to FIN 610 and should be taken in the first semester.
- FIN 610 is prerequisite to all other FIN courses.
- FIN 630 is prerequisite to FIN 645.
- FIN 620 and FIN 630 are prerequisite to FIN 660.
- MGMT 640 should not be attempted simultaneously with MGMT 650.
- You must complete 24 credits of program coursework, including all core courses, before enrolling in MGMT 670.

Master of Science in Management: Homeland Security Management Specialization

The specialization in homeland security management helps prepare you to take a leadership role in protecting against natural and human-made threats to U.S. security. You can gain practical managerial skills experience in performing security risk assessments; planning for and managing operational recovery; and developing strategies to protect people, facilities, and critical infrastructure.

What You'll Learn

Through your coursework, you will learn how to

- Tackle the five mission areas in homeland security as defined by the Department of Homeland Security
- Perform risk assessments
- Conduct resilience planning and preparedness for disaster response and recovery
- Apply risk methodologies to critical infrastructure sectors, including the energy industry
- Make decisions using statistics and financial information
- Use organizational theory, effectiveness measurement, and systems thinking
- Manage intercultural environments

Preparation Recommended for Success

RECOMMENDATIONS

If you lack a recent background in finance or accounting, you should take UCSP 620 before MGMT 640. If you lack a recent background in statistics, you should take UCSP 630 before MGMT 650. Taking UCSP 605 is recommended to improve writing skills.

Vertical Pathway

If you completed your undergraduate degree at UMGC with coursework in homeland security, a vertical pathway between UMGC's undergraduate and graduate programs in that field allows you to reduce your total coursework for a related graduate degree by up to 6 credits (two courses). Details are on p. 20.

Degree Requirements

MS IN MANAGEMENT: HOMELAND SECURITY MANAGEMENT SPECIALIZATION

	Credits
Required Core Courses	12
Required Specialization Courses	21
Required Capstone Course	3
Total	36

INITIAL REQUIREMENT

(to be taken within the first 6 credits of study)

UCSP 615 Orientation to Graduate Studies at UMGC (0)

REQUIRED CORE COURSES

MGMT 630 Organizational Theory and Behavior (6)
 MGMT 640 Financial Decision Making for Managers (3)
 MGMT 650 Statistics for Managerial Decision Making (3)

REQUIRED SPECIALIZATION COURSES

HSMN 610 Concepts in Homeland Security (3)
 HSMN 625 Critical Infrastructures (3)
 HSMN 630 Resilience Planning and Preparedness for Disaster Response and Recovery (3)
 INFA 660 The Law, Regulation, and Ethics of Information Assurance (3)
 BSBD 641 Biosecurity and Bioterrorism (3)
 EMAN 620 Information Technology in Emergency Management (3)
 HSMN 670 Seminar in Homeland Security (3)

REQUIRED CAPSTONE COURSE

MGMT 670 Strategic Management Capstone (3)

MASTER'S DEGREE PROGRAMS

CURRICULA

ALTERNATE COURSES

MGMT 610 Organizational Theory (3) and MGMT 615 Inter-cultural Communication and Leadership (3) may be taken instead of MGMT 630.

COURSE SEQUENCING

- MGMT 630 (or MGMT 610) must be taken within the first 6 credits.
- MGMT 640 should not be attempted simultaneously with MGMT 650.
- HSMN 610 must be taken as one of the first two specialization courses.
- HSMN 670 must be taken in your last semester.
- You must complete 24 credits of program coursework, including all core courses, before enrolling in MGMT 670.

Master of Science in Management: Human Resource Management Specialization

The specialization in human resource management is designed to give you the knowledge and skills you need to advance in the HR field and is aligned with the Society for Human Resource Management guidelines for graduate education. In this program, you can gain practical, management-level experience in the theory, research, knowledge, and procedures used by HR executives, generalists, and specialists—and develop a skill set you can take anywhere.

What You'll Learn

Through your coursework, you will learn how to

- Design human resources policies and processes to support changing environmental factors and organizational goals
- Evaluate employee relations in union and nonunion organizations
- Design efficient and effective recruitment and selection methods
- Evaluate strategies, procedures, and techniques of job analysis, design, and evaluation; performance appraisal; and compensation management
- Prescribe appropriate organizational development strategies and techniques
- Plan a training program
- Diagnose problems and identify solutions for managing virtual and global teams

INDUSTRY CERTIFICATION

This program is designed to help prepare you for the following certification exams:

- Professional in Human Resources (PHR)
- Senior Professional in Human Resources (SPHR)
- SHRM-Certified Professional (SHRM-CP)
- SHRM-Senior Certified Professional (SHRM-SCP)

Preparation Recommended for Success

RECOMMENDATIONS

If you lack a recent background in finance or accounting, you should take UCSP 620 before MGMT 640. If you lack a recent background in statistics, you should take UCSP 630 before MGMT 650. Taking UCSP 605 is recommended to improve writing skills.

Degree Requirements

MS IN MANAGEMENT: HUMAN RESOURCE MANAGEMENT SPECIALIZATION

	Credits
Required Core Courses	12
Required Specialization Courses	21
Required Capstone Course	3
Total	36

INITIAL REQUIREMENT

(to be taken within the first 6 credits of study)

UCSP 615 Orientation to Graduate Studies at UMGC (0)

REQUIRED CORE COURSES

MGMT 630 Organizational Theory and Behavior (6)
MGMT 640 Financial Decision Making for Managers (3)
MGMT 650 Statistics for Managerial Decision Making (3)

REQUIRED SPECIALIZATION COURSES

HRMD 610 Issues and Practices in Human Resource Management (3)
HRMD 620 Employee and Labor Relations (3)
HRMD 630 Recruitment and Selection (3)

MASTER'S DEGREE PROGRAMS CURRICULA

- HRMD 640 Job Analysis, Assessment, and Compensation (3)
- HRMD 650 Organizational Development and Change (3)
- HRMD 651 Current Perspectives in Training and Development (3)
- HRMD 665 Managing Virtual and Global Teams (3)

REQUIRED CAPSTONE COURSE

- MGMT 670 Strategic Management Capstone (3)

ALTERNATE COURSES

MGMT 610 Organizational Theory (3) and MGMT 615 Intercultural Communication and Leadership (3) may be taken instead of MGMT 630.

COURSE SEQUENCING

- MGMT 630 (or MGMT 610) must be taken within the first 6 credits.
- MGMT 640 should not be attempted simultaneously with MGMT 650.
- You must complete 24 credits of program coursework, including all core courses, before enrolling in MGMT 670.
- Courses should be taken in the order listed.

Master of Science in Management: Information Systems and Services Specialization

The information systems and services specialization teaches you how to procure and use computer-based information systems for decision making and organizational effectiveness. In this program, you can learn how to integrate and use information systems to create value within your organization. The specialization is designed for professionals who have little or no experience with computers, as well as those with advanced computer skills.

What You'll Learn

Through your coursework, you will learn how to

- Use organizational theory, effectiveness measurement, and systems thinking to solve problems
- Manage intercultural environments
- Use advanced project management skills
- Develop databases
- Analyze systems
- Outsource appropriate tasks

Preparation Recommended for Success

RECOMMENDATIONS

If you lack a recent background in finance or accounting, you should take UCSP 620 before MGMT 640. If you lack a recent background in statistics, you should take UCSP 630 before MGMT 650. Taking UCSP 605 is recommended to help improve writing skills.

Degree Requirements

MS IN MANAGEMENT: INFORMATION SYSTEMS AND SERVICES SPECIALIZATION

	Credits
Required Core Courses	12
Required Specialization Courses	21
Required Capstone Course	3
Total	36

INITIAL REQUIREMENT

(to be taken within the first 6 credits of study)

- UCSP 615 Orientation to Graduate Studies at UMGC (0)

REQUIRED CORE COURSES

- MGMT 630 Organizational Theory and Behavior (6)
- MGMT 640 Financial Decision Making for Managers (3)
- MGMT 650 Statistics for Managerial Decision Making (3)

REQUIRED SPECIALIZATION COURSES

- ISAS 600 Information Systems for Managers (3)
- ISAS 610 Information Systems Management and Integration (3)
- ISAS 620 Information Systems Sourcing Management (3)
- ISAS 630 Systems Analysis and Design (3)
- ISAS 640 Decision Support Systems and Expert Systems (3)
- ISAS 650 Information Technology, the CIO, and Organizational Transformation (3)
- IMAT 639 Internet Multimedia Applications (3)

REQUIRED CAPSTONE COURSE

- MGMT 670 Strategic Management Capstone (3)

MASTER'S DEGREE PROGRAMS

CURRICULA

ALTERNATE COURSES

MGMT 610 Organizational Theory (3) and MGMT 615 Intercultural Communication and Leadership (3) may be taken instead of MGMT 630.

COURSE SEQUENCING

- MGMT 630 (or MGMT 610) must be taken within the first 6 credits.
- MGMT 640 should not be attempted simultaneously with MGMT 650.
- ISAS 600 should be taken before any other ISAS courses.
- You must complete 24 credits of program coursework, including all core courses, before enrolling in MGMT 670.

Honor Society

Information on eligibility for membership in the UMGC chapter of Upsilon Pi Epsilon, the national academic honor society for the computing and information disciplines, is available on p. 292.

Master of Science in Management: Intelligence Management Specialization

The intelligence management specialization prepares you to take on management roles in intelligence collection and analysis, counterintelligence, counterterrorism, cyber intelligence and espionage, resource management, implementation of new machine learning techniques, and intelligence policy and oversight for national security and law enforcement. Designed for early- to midcareer intelligence professionals, the specialization will improve your professional qualifications and teach you to apply solid management theories and principles, engage in intelligence-related research, and assess intelligence-related data for decision making. It will also prepare you to gain an essential understanding of interagency collaboration and the organization, priorities, processes, and assigned roles and responsibilities of the Intelligence Community.

What You'll Learn

Through your coursework, you will learn how to

- Employ holistic solutions and strategies to leverage human, open source, signals, geospatial, technical, and cyber intelligence collection against a wide spectrum of target sets
- Apply analytical theories, innovative methodologies, deep learning, and intelligent automation and artificial intelligence to gain a broad understanding of the challenges of analysis and its role in providing threat-warning indicators and situational awareness in supporting policy makers, decision makers, and military personnel

- Assess counterintelligence, foreign espionage, cyber and insider threats, violent extremism, and emerging asymmetric threats to national security
- Apply leadership principles, risk assessments, and threat-mitigation strategies to the unique challenges facing Intelligence Community leaders
- Assess the impact of emerging technologies such as artificial intelligence and machine learning in intelligence, surveillance, and reconnaissance (ISR); threat indicators and analysis; collection; intelligence management; targeting; and counterintelligence

Preparation Recommended for Success

RECOMMENDATIONS

If you lack a recent background in finance or accounting, you should take UCSP 620 before MGMT 640. If you lack a recent background in statistics, you should take UCSP 630 before MGMT 650. Taking UCSP 605 is recommended to help improve writing skills.

Degree Requirements

MS IN MANAGEMENT: INTELLIGENCE MANAGEMENT SPECIALIZATION

	Credits
Required Core Courses	12
Required Specialization Courses	21
Required Capstone Course	3
Total	36

INITIAL REQUIREMENT

(to be taken within the first 6 credits of study)

UCSP 615 Orientation to Graduate Studies at UMGC (0)

REQUIRED CORE COURSES

MGMT 630 Organizational Theory and Behavior (6)
 MGMT 640 Financial Decision Making for Managers (3)
 MGMT 650 Statistics for Managerial Decision Making (3)

REQUIRED SPECIALIZATION COURSES

INMS 600 Managing Intelligence Activities (3)
 INMS 610 Intelligence Collection: Sources and Challenges (3)
 INMS 620 Intelligence Analysis: Consumers, Uses, and Issues (3)

MASTER'S DEGREE PROGRAMS CURRICULA

- INMS 630 Counterintelligence (3)
- INMS 640 Intelligence-Led Enforcement (3)
- INMS 650 Intelligence Management and Oversight (3)
- INMS 660 Leadership Seminar (3)

REQUIRED CAPSTONE COURSE

- MGMT 670 Strategic Management Capstone (3)

ALTERNATE COURSES

MGMT 610 Organizational Theory (3) and MGMT 615 Intercultural Communication and Leadership (3) may be taken instead of MGMT 630.

COURSE SEQUENCING

- MGMT 630 (or MGMT 610) must be taken within the first 6 credits.
- MGMT 640 should not be attempted simultaneously with MGMT 650.
- Specialization courses should be taken in the order listed.
- INMS 600 and INMS 610 must be taken as the first two specialization courses.
- INMS 660 must be taken after all specialization and core courses (except MGMT 670).
- You must complete 24 credits of program coursework, including all core courses, before enrolling in MGMT 670.

Master of Science in Management: Interdisciplinary Studies in Management Specialization

The interdisciplinary studies in management specialization can provide you with the skills that are essential for managers in every organization. The curriculum covers fundamentals in human resources, project management, marketing, and information systems. Whether you are new to the field, changing careers, or looking to advance in your current organization, you need look no further for a respected credential that can boost your professional value and provide you with strong managerial skills.

What You'll Learn

Through your coursework, you will learn how to

- Assess employee performance at the individual, group, and organization levels
- Market an organization's services through advertising and sales promotions

- Coach and mentor employees
- Manage culturally diverse work environments and work groups
- Motivate and incentivize employees

Preparation Recommended for Success

RECOMMENDATIONS

If you lack a recent background in finance or accounting, you should take UCSP 620 before MGMT 640. If you lack a recent background in statistics, you should take UCSP 630 before MGMT 650. Taking UCSP 605 is recommended to improve writing skills.

Degree Requirements

MS IN MANAGEMENT: INTERDISCIPLINARY STUDIES IN MANAGEMENT SPECIALIZATION

	Credits
Required Core Courses	12
Required Specialization Courses	21
Required Capstone Course	3
Total	36

INITIAL REQUIREMENT

(to be taken within the first 6 credits of study)

- UCSP 615 Orientation to Graduate Studies at UMGC (0)

REQUIRED CORE COURSES

- MGMT 630 Organizational Theory and Behavior (6)
- MGMT 640 Financial Decision Making for Managers (3)
- MGMT 650 Statistics for Managerial Decision Making (3)

REQUIRED SPECIALIZATION COURSES

- HRMD 610 Issues and Practices in Human Resource Management (3)
- HRMD 620 Employee and Labor Relations (3)
- MRKT 600 Marketing Management (3)
- ISAS 600 Information Systems for Managers (3)
- HRMD 650 Organizational Development and Change (3)
- MRKT 601 Legal and Ethical Issues in Marketing (3)
- PMAN 634 Foundations of Project Management (3)

MASTER'S DEGREE PROGRAMS CURRICULA

REQUIRED CAPSTONE COURSE

MGMT 670 Strategic Management Capstone

ALTERNATE COURSES

- MGMT 610 Organizational Theory (3) and MGMT 615 Intercultural Communication and Leadership (3) may be taken instead of MGMT 630.
- MRKT 620 Marketing Management, Legal, and Ethical Issues (6) may be taken instead of MRKT 600 and MRKT 601.

COURSE SEQUENCING

- MGMT 630 (or MGMT 610) must be taken within the first 6 credits.
- MGMT 640 should not be attempted simultaneously with MGMT 650.
- You must complete 24 credits of program coursework, including all core courses, before enrolling in MGMT 670.

Master of Science in Management: Marketing Specialization

The specialization in marketing can help you move toward a senior position with leadership skills essential to the core function of every organization, public or private. Whether you're new to marketing, looking to move up, or changing careers, you'll learn the latest marketing strategies, as well as the foundations of solid management practice, to gain an edge in the job market.

What You'll Learn

Through your coursework, you will learn how to

- Develop marketing strategies and plans effectively
- Develop creative strategies that communicate successfully with prospects
- Assess the effectiveness of a marketing program and develop recommendations for improvement
- Choose between many media options and use media effectively to achieve results
- Understand and implement research design
- Apply ethical principles in business situations

Preparation Recommended for Success

RECOMMENDATIONS

If you lack a recent background in finance or accounting, you should take UCSP 620 before MGMT 640. If you lack a recent background in statistics, you should take UCSP 630 before MGMT 650. Taking UCSP 605 is recommended to help improve writing skills.

Degree Requirements

MS IN MANAGEMENT: MARKETING SPECIALIZATION

	Credits
Required Core Courses	12
Required Specialization Courses	21
Required Capstone Course	3
Total	36

INITIAL REQUIREMENT

(to be taken within the first 6 credits of study)

UCSP 615 Orientation to Graduate Studies at UMGC (0)

REQUIRED CORE COURSES

- MGMT 630 Organizational Theory and Behavior (6)
- MGMT 640 Financial Decision Making for Managers (3)
- MGMT 650 Statistics for Managerial Decision Making (3)

REQUIRED SPECIALIZATION COURSES

- MRKT 620 Marketing Management, Legal, and Ethical Issues (6)
- MRKT 602 Consumer Behavior (3)
- MRKT 603 Brand Management (3)
- MRKT 604 Marketing Research and Analytics (3)
- MRKT 605 International Marketing Management (3)
- MRKT 606 Digital and Direct Marketing (3)

REQUIRED CAPSTONE COURSE

MGMT 670 Strategic Management Capstone (3)

ALTERNATE COURSES

MRKT 600 Marketing Management (3) and MRKT 601 Legal and Ethical Issues in Marketing (3) may be taken instead of MRKT 620.

MASTER'S DEGREE PROGRAMS

CURRICULA

COURSE SEQUENCING

- MGMT 650 must be completed before MRKT 604 and MRKT 606.
- MGMT 640 should not be attempted simultaneously with MGMT 650.
- You must complete 24 credits of program coursework, including all core courses, before enrolling in MGMT 670.

Master of Science in Management: Nonprofit and Association Management Specialization

The specialization in nonprofit and association management can help you learn to successfully direct an organization in the nonprofit sector. Whether you're in an association, development organization, foundation, or political organization, you'll learn the latest governance strategies, as well as the fundamentals of solid financial management and leadership to help your organization fulfill its mission.

What You'll Learn

Through your coursework, you will learn how to

- Manage finances and generate revenue for a nonprofit organization
- Analyze legal and governance-related issues
- Recruit and manage volunteers
- Promote, market, and fundraise for a nonprofit organization
- Measure outcomes and processes
- Develop a leadership style and strategy

INDUSTRY CERTIFICATION

This program can help prepare you for the Certified Associate Executive exam.

Preparation Recommended for Success

EXPECTATIONS

You are expected to have some familiarity with Microsoft Excel.

RECOMMENDATIONS

If you lack a recent background in finance or accounting, you should take UCSP 620 before MGMT 640. If you lack a recent background in statistics, you should take UCSP 630 before MGMT 650. Taking UCSP 605 is recommended to improve writing skills.

Degree Requirements

MS IN MANAGEMENT: NONPROFIT AND ASSOCIATION MANAGEMENT SPECIALIZATION

	Credits
Required Core Courses	12
Required Specialization Courses	21
Required Capstone Course	3
Total	36

INITIAL REQUIREMENT

(to be taken within the first 6 credits of study)

UCSP 615 Orientation to Graduate Studies at UMGC (0)

REQUIRED CORE COURSES

MGMT 630 Organizational Theory and Behavior (6)
 MGMT 640 Financial Decision Making for Managers (3)
 MGMT 650 Statistics for Managerial Decision Making (3)

REQUIRED SPECIALIZATION COURSES

NPMN 600 Nonprofit and Association Organizations and Issues (3)
 NPMN 610 Nonprofit and Association Law and Governance (3)
 NPMN 620 Nonprofit and Association Financial Management (3)
 NPMN 640 Marketing, Development, and Public Relations in Nonprofit Organizations and Associations (3)
 NPMN 650 Fundamentals of Association Management (3)
 NPMN 655 Outcome and Process Evaluation Management (3)
 NPMN 660 Strategic Management in Nonprofit Organizations and Associations (3)

REQUIRED CAPSTONE COURSE

MGMT 670 Strategic Management Capstone (3)

ALTERNATE COURSES

MGMT 610 Organizational Theory (3) and MGMT 615 Intercultural Communication and Leadership (3) may be taken instead of MGMT 630.

MASTER'S DEGREE PROGRAMS CURRICULA

COURSE SEQUENCING

- MGMT 630 (or MGMT 610) must be taken within the first 6 credits.
- MGMT 640 should not be attempted simultaneously with MGMT 650.
- NPMN 600 must be taken as the first specialization course.
- Taking NPMN 650 before NPMN 655 is strongly recommended.
- You must complete 24 credits of program coursework, including all core courses, before enrolling in MGMT 670.

Master of Science in Management: Project Management Specialization

The specialization in project management allows you to develop advanced business management skills while building expertise for project management certification.

What You'll Learn

Through your coursework, you will learn how to

- Initiate, plan, track, and close projects
- Manage the schedule of a complex project and conflicts that arise
- Perform quantitative analyses and manage risks involved in complex projects
- Coach and mentor employees
- Manage culturally diverse work environments
- Assess performance at the individual, group, and organization levels

INDUSTRY CERTIFICATION

This program is designed to help prepare you for the following certification exams:

- PMI Certified Associate in Project Management (CAPM)
- PMI Project Management Professional (PMP)

Preparation Recommended for Success

RECOMMENDATIONS

If you lack a recent background in finance or accounting, you should take UCSP 620 before MGMT 640. If you lack a recent background in statistics, you should take UCSP 630 before MGMT 650. Taking UCSP 605 is recommended to improve writing skills.

Academic Relationship

Completing this program earns you the project management education hours required to sit for the Project Management Professional (PMP) Credential Examination or the Certified Associate in Project Management (CAPM) Exam. If you are already certified as a Project Management Professional by the Project Management Institute and begin study for the master's degree within five years of earning certification, you may receive credit for PMAN 634 Foundations of Project Management. Advisors can provide more information.

Degree Requirements

MS IN MANAGEMENT: PROJECT MANAGEMENT SPECIALIZATION

	Credits
Required Core Courses	12
Required Specialization Courses	21
Required Capstone Course	3
Total	36

INITIAL REQUIREMENT

(to be taken within the first 6 credits of study)

UCSP 615 Orientation to Graduate Studies at UMGC (0)

REQUIRED CORE COURSES

MGMT 630 Organizational Theory and Behavior (6)
MGMT 640 Financial Decision Making for Managers (3)
MGMT 650 Statistics for Managerial Decision Making (3)

REQUIRED SPECIALIZATION COURSES

PMAN 634 Foundations of Project Management (3)
PMAN 635 Quantitative Methods in Project Management (3)
PMAN 637 Project Risk Management (3)
PMAN 638 Project Communications Management (3)
PMAN 639 Project Quality Management (3)
PMAN 641 Project Procurement Management (3)
PMAN 650 Financial and Strategic Management of Projects (3)

REQUIRED CAPSTONE COURSE

MGMT 670 Strategic Management Capstone (3)

MASTER'S DEGREE PROGRAMS CURRICULA

ALTERNATE COURSES

MGMT 610 Organizational Theory (3) and MGMT 615 Inter-cultural Communication and Leadership (3) may be taken instead of MGMT 630.

COURSE SEQUENCING

- MGMT 630 (or MGMT 610) must be taken within the first 6 credits.
- MGMT 640 should not be attempted simultaneously with MGMT 650.
- PMAN 634 is prerequisite to all other PMAN courses and must be taken as the first specialization course.
- MGMT 640 (or an approved course in finance) and MGMT 650 (or an approved course in statistics) must be taken before PMAN 635.
- PMAN 635 must be taken before PMAN 637, PMAN 639, and PMAN 650.
- You must complete 24 credits of program coursework, including all core courses, before enrolling in MGMT 670.

Program Recognition

UMGC's master's degree programs with project management specializations are recognized by the Global Accreditation Center (GAC) of the Project Management Institute (PMI).

Strategic Communications

You may earn a Master of Science in Strategic Communications.

Master of Science in Strategic Communications

The graduate program in strategic communications is designed to prepare you for leadership positions in public relations and related communications fields. Ideal for midcareer professionals, this project-based program provides realistic experiences that will develop your communications team management and leadership skills while deepening your understanding and ability to apply the theories, principles, and best practices that guide the profession of strategic communications today.

What You'll Learn

Through your coursework, you will learn how to

- Use data analytics and other research methods to create a truly strategic approach to communicating your organization's story
- Achieve organizational objectives through the application of ethical best practices and principles of leadership and management in the new communications environment where the public relations, marketing, and advertising fields converge
- Plan for, implement, and evaluate strategic and crisis communications activities and campaigns in an ethical manner by applying communications theory, principles, and best practices
- Create communications products for traditional, digital, and social media platforms that incorporate organizational messages and operational initiatives and engage your publics effectively

INDUSTRY CERTIFICATION

This program is designed to help prepare you for the following certification exams, listed in alphabetical order:

- Accreditation in Public Relations
- Strategic Communication Management Professional

Preparation Recommended for Success

EXPECTATIONS

You are expected to have some familiarity with the Microsoft Office Suite.

RECOMMENDATIONS

Taking ASC 601 is recommended to help improve writing skills. If you have not recently written professionally in a public relations or related communications field, we also recommend that you familiarize yourself with AP style. You will have access to the *AP Stylebook* once you have been accepted into the program and classes begin.

Degree Requirements

MS IN STRATEGIC COMMUNICATIONS

	Credits
Required Foundation Course	6
Required Core Courses	30
Total	36

MASTER'S DEGREE PROGRAMS CURRICULA

REQUIRED FOUNDATION COURSE

DCL 600 Decisive Thinking, Communicating, and Leading (6)

REQUIRED CORE COURSES

MSC 610 Foundations of Strategic Communications (6)
MSC 620 Communications Techniques and Tactics (6)
MSC 630 Communications Leadership and Management (6)
MSC 640 Crisis Communications Management (6)
MSC 670 Capstone: Communications Campaigns (6)

COURSE SEQUENCING

Courses must be taken in the order listed.

Criteria for Program Progression

You must complete each course with a grade of B or better to advance to the next course. (The grade of C is not available for these courses.) Your course syllabus will explain options for and consequences of requesting an Incomplete.

Teaching

You may earn a Master of Arts in Teaching.

Master of Arts in Teaching

The Master of Arts in Teaching (MAT) program provides the latest teaching strategies and offers the opportunity to gain the experience you need to enter the field of secondary education with confidence. In this program, you can develop skills in teaching to diverse student bodies, integrating technology in the classroom, and responding to varying learning styles in a wide range of secondary school environments.

This program is designed for students with a bachelor's degree who want to earn teaching certification in a specific subject area (available areas listed at umgc.edu/MAT). Whether you're new to teaching, retiring from a previous profession, relocating, returning to the workforce, teaching overseas, or simply seeking a second career that builds on previous study, we'll help you prepare for a rewarding career as an educator.

This program is designed to help you achieve Maryland teaching certification in the field of secondary education and can be helpful for becoming certified in other states. See umgc.edu/professional-licensure for information about professional licensure in this field and contact information for the professional licensure boards in other states.

What You'll Learn

Through your coursework, you will learn how to

- Design and deliver instructional plans
- Manage a middle or high school classroom
- Assess student learning
- Use technology to maximize student learning
- Differentiate teaching methods
- Teach secondary students in a variety of settings, including conventional classrooms; urban, suburban, and rural schools; and learning communities that have cultural, ethnic, language, and socioeconomic diversity

Preparation Recommended for Success

RECOMMENDATIONS

Taking UCSP 605 is recommended to help improve writing skills.

Vertical Pathway

If you earned a bachelor's degree from UMGC in an appropriate major (computer science, English, history, or social science or a general studies degree with a minimum of a 30-credit specialization in social studies) or have the appropriate coursework (including biology and mathematics coursework) and took EDTP 500 and EDTP 535, you can reduce the total coursework for the MAT degree by up to 12 credits (three courses), including the noncredit introductory course UCSP 615. Details are on p. 20.

Degree Requirements

MAT

	Credits
Required Core Courses	24
Required Professional Internship	6
Total	30

FIELD EXPERIENCE

Every course in the MAT program includes field experience components in which you'll develop and practice your knowledge, skills, and dispositions for working effectively with diverse learners. This experience culminates in a full-time, on-site teaching internship of at least 80 in-school days (approximately 18 calendar weeks), which you complete under the supervision of a mentor teacher who is certified in your content area and a university supervisor.

MASTER'S DEGREE PROGRAMS CURRICULA

You will be responsible for following procedures for arranging field experiences and classroom observations within the school district of your choice. While UMGC is able to provide support and assistance in securing field placements, we cannot guarantee that all school districts will grant MAT students permission to enter the classroom. Also, states and local school districts have varying regulations and policies regarding field experiences and student teaching. We recommend you familiarize yourself with the student teaching requirements for your state and locality.

INITIAL REQUIREMENT

(to be taken within the first 6 credits of study)

UCSP 615 Orientation to Graduate Studies at UMGC (0)

REQUIRED CORE COURSES

- EDTP 600 Foundations of Teaching for Learning (6)
EDTP 635 Adolescent Development and Learning Needs (6)
EDTP 639 Reading and Multiple Literacies (6)
EDTP 645 Subject Methods and Assessment (6)

REQUIRED PROFESSIONAL INTERNSHIP

EDTP 650 Professional Internship and Seminar (6)

COURSE SEQUENCING

- Courses should be taken in the order listed.
- EDTP 600 and EDTP 635 may be taken together and must be taken before EDTP 639.
- EDTP 639 and EDTP 645 may be taken together and must be completed before EDTP 650.

Criteria for Program Progression

In accordance with the requirements of the Council for Accreditation of Educator Preparation (CAEP), the MAT program requires that you earn grades of 80 percent (B) or better on major assignments. Therefore, you must complete each course with a grade of B or better to advance to the next course. The grade of C is not acceptable for MAT courses. Your course syllabus will explain options for and consequences of requesting an Incomplete.

Technology Requirements

As a student in the MAT program, you are required to purchase a one-time \$139 subscription (good for seven years) to Tk20 HigherEd before your first class. Tk20 is a comprehensive assessment and management system that supports all education students at UMGC. You may also need access to a webcam/microphone for certain assignments.

Graduation Requirements

Before beginning the professional internship, you must pass a content assessment. To graduate, you must also complete a performance-based teaching portfolio and student learning objectives project and register for the Praxis II pedagogy exam.

Professional Certification

Fulfilling the requirements of the MAT provides eligibility for the Maryland Standard Professional Certificate I (SPC I), which is granted by the graduate education department of the Maryland State Department of Education (MSDE). Other requirements may apply to become certified in Maryland. For more information, visit marylandpublicschools.org/about/pages/dee/certification/index.aspx. The Maryland certification enables you to teach in the state of Maryland once you graduate and provides enhanced opportunities for interstate reciprocity.

Note that while Maryland state certification to teach world languages is valid for grades pre-K through 12, the MAT program focuses on teaching at the secondary school level.

Teacher certification requirements are constantly evolving in many states. You are responsible for remaining informed about the teacher certification requirements of the state in which you seek to become certified. You should also confirm requirements and any reciprocity arrangements with the state's certifying agency.

More information about professional licensure is available at umgc.edu/professional-licensure.

Program Accreditation

The graduate education programs at University of Maryland Global Campus have been accredited by the National Council for Accreditation of Teacher Education (now the Council for the Accreditation of Educator Preparation, caepnet.org). This accreditation covers the Master of Arts in Teaching program for initial teacher preparation and the Master of Education in Instructional Technology program at UMGC. However, the accreditation does not include individual education courses that the institution offers to P-12 educators for professional development, relicensure, or other purposes.

This program is also approved by the Maryland Higher Education Commission and by the Maryland State Department of Education as a professional education program leading to state teacher certification in the state of Maryland.

MASTER'S DEGREE PROGRAMS

CURRICULA

Transformational Leadership

You may earn a Master of Science in Transformational Leadership.

Master of Science in Transformational Leadership

The Master of Science (MS) in Transformational Leadership program is designed for students with military experience who want to build on and maximize their leadership training and skills to transition to corporate, nonprofit, or government organizations. Each course offers you practical experience by using workplace scenarios to apply your strategic-thinking and decision-making skills in both group and individual activities with civilian organizations. You “learn by doing” and graduate better prepared for workplace opportunities. The program provides hands-on experience with transformational leadership strategies and techniques that will enable you to effect change at the individual, group, and organizational levels and prepare you for positions in civilian organizations. You’ll utilize theories and concepts in leadership in a civilian context, focusing on the dynamics of leadership and building skills in communication, strategic planning and management, team building, conflict resolution and mediation, fiscal and performance-based decision making, change management, project management, and organizational learning.

What You'll Learn

Through your coursework, you will learn how to

- Analyze your strengths and weaknesses as a leader and leverage them to accomplish strategic goals
- Manage civilian employees and help them perform at higher levels
- Analyze the performance of an organization through metrics and formulate strategies to improve that performance
- Manage change in the organization’s environment
- Collaborate with an organization to address an internal business challenge

Preparation Recommended for Success

EXPECTATIONS

You are expected to have some leadership experience as an officer (noncommissioned or commissioned).

RECOMMENDATIONS

Taking ASC 601 is recommended to improve writing skills.

Degree Requirements

MS IN TRANSFORMATIONAL LEADERSHIP

	Credits
Required Foundation Course	6
Required Core Courses	30
Total	36

REQUIRED FOUNDATION COURSE

DCL 600 Decisive Thinking, Communicating, and Leading (6)

REQUIRED CORE COURSES

TLP 610 Repositioning Your Leadership Skills (6)

TLP 620 Leading in the Organization (6)

TLP 630 Leading with Strategy and Performance Measures (6)

TLP 640 Leading Through Change and Uncertainty (6)

TLP 670 Leadership Capstone (6)

COURSE SEQUENCING

Courses must be taken in the order listed.

Criteria for Program Progression

You must complete each course with a grade of B or better to advance to the next course. The grade of C is not available for these courses. Your course syllabus will explain options for and consequences of requesting an Incomplete.

DOCTORAL DEGREE PROGRAM

DEGREE REQUIREMENTS

At the doctoral level, UMGC offers the Doctor of Business Administration (DBA).

Expectations

Within the doctoral program, the following essential core competencies are emphasized:

- Analysis of the business intelligence environment in an organization through the application of innovative functional business knowledge
- Development of ethical and evidence-based research solutions to complex organizational problems
- Development of new thinking to solve pressing business challenges by demonstrating a global mindset
- Development of best practices in business to improve competitiveness and resilience in a dynamic environment
- The ability to conduct and evaluate management research of publishable quality

Requirements

Continuous Enrollment

In general, the UMGC degree requirements that apply to you are those that were in effect when you completed the first credit-bearing course in a given program at UMGC. If you cease to be continuously enrolled, the program requirements that apply to you are those in effect at UMGC when you return to UMGC and enroll in a credit-bearing course for the program you wish to pursue at that time.

To be considered continuously enrolled, you must have had no more than two sequential years of nonenrollment. After two years of non-enrollment, you must apply for admission to resume enrollment.

If you change your degree program while continuously enrolled, then the program requirements that apply to you are those in effect at the time you enroll in the first required course for that program. Previously completed coursework may not apply to the new requirements.

Information about the catalog year that applies to you is provided in the MyUMGC student portal.

The following requirements for the doctoral degree are applicable to students who begin continuous enrollment on or after August 1, 2020.

Overall Requirements

The DBA program requires the completion of 48 credits of coursework, including 36 credits in academic content coursework and 12 credits of dissertation coursework. Attendance at a two-day residency on-site in Maryland each term is mandatory. DBA 600 (described on p. 255) is prerequisite to the program; this course is held entirely online with no on-site residency requirement.

Good Academic Standing

The doctoral program requires more than maintaining a GPA of 3.0 to remain in good standing. If you receive a grade below B in a course, including a dissertation course, you must repeat that course in the next term of enrollment and earn a grade of B or better. The option to repeat a course may be exercised only once.

If you receive a second grade below B, you will be dismissed from the doctoral program, regardless of your GPA.

Further information is available in section III. D. of UMGC Policy 158.01 Academic Standing Status for Graduate Students (umgc.edu/policies).

Time Limits

All requirements established for the completion of the doctoral degree program listed in this publication must be fulfilled within seven consecutive years. The time limit is calculated from the term in which you successfully complete the first credit course that applies to the program, except for the prerequisite course, DBA 600.

DOCTORAL DEGREE PROGRAM CURRICULUM

Business Administration

Designed for executive-level working professionals, the Doctor of Business Administration (DBA) program emphasizes management theory and strategic thinking, organizational leadership and change, research and innovation, and sustainability in the global business environment. Through applied research and analysis of real-world management issues, you'll gain sophisticated knowledge for the executive level of management.

The cohort structure promotes close, interactive collaboration among students, faculty, and staff and a supportive network for lifelong learning. You'll also benefit from exposure to national and global perspectives and experiences with geographically diverse classmates and faculty.

What You'll Learn

Through your coursework, you will learn how to

- Conduct and evaluate management research for decision making
- Investigate the overall business intelligence environment in an organization
- Develop ethical solutions to complex organizational problems
- Develop new thinking to solve the most pressing business challenges of the 21st century
- Initiate and lead successful change

Preparation Recommended for Success

EXPECTATIONS

You are expected to have supervisory management experience and a management or business background.

RECOMMENDATIONS

UMGC's doctoral program is writing-intensive. To improve your writing skills, you should take the noncredit course ASC 601.

Degree Requirements

DBA

	Credits
Required Core Courses	36
Required Dissertation Courses	12
Total	48

PREREQUISITE COURSE

DBA 600 Foundations of Doctoral Studies (3)

REQUIRED CORE COURSES

DBA 800 Interpreting and Translating Management Theory in Practice (6)

DBA 810 Research as a Tool for Management Decision Making (6)

DBA 820 Evidence-Based Research Methods (6)

DBA 830 Data Analytics in Practice (6)

DBA 840 Designing Evidence-Based Management Solutions (6)

DBA 850 Producing Original Management Ideas That Influence: Publishing and Conferencing (6)

REQUIRED DISSERTATION COURSES

DBA 860 Producing Actionable Knowledge: Dissertation Problem Statement and Literature Review (4)

DBA 870 Producing Actionable Knowledge: Dissertation Methodology and Analysis (4)

DBA 880 Producing Actionable Knowledge: Management Implications from Dissertation Research (4)

COURSE SEQUENCING

Courses must be taken in the order listed.

Criteria for Program Progression

You must complete each course with a grade of B or better to advance to the next course. (The grade of C is not available for these courses.) Your course syllabus will explain options for and consequences of requesting an Incomplete.

CERTIFICATE PROGRAMS

REQUIREMENTS AND CURRICULA

To help you meet your educational goals, UMGC offers certificate programs that respond to current trends in today's demanding job market. Certificate programs offer working adults a convenient, flexible way to earn credentials for potential career advancement. All are available online.

The undergraduate certificate programs generally require 16 to 18 credits, and graduate certificate programs generally require 12 to 18 credits. All courses for the certificate programs carry college credit and may be applied toward a related degree.

More details about certificate programs is available online at umgc.edu/certificates.

Expectations

Within each academic certificate program, UMGC seeks to help you gain specific skills needed to advance in your career. Most certificates are fully stackable, that is, they are part of a more advanced degree program, such as one leading to a bachelor's or master's degree. However, each certificate may also be used as a stand-alone credential capable of enhancing your career and giving you an advantage in the job market.

Requirements

Continuous Enrollment

In general, the UMGC degree requirements that apply to you are those that were in effect when you completed the first credit-bearing course in a given program at UMGC. If you cease to be continuously enrolled, the program requirements that apply to you are those in effect at UMGC when you return to UMGC and enroll in a credit-bearing course for the program you wish to pursue at that time.

To be considered continuously enrolled, you must have had no more than two sequential years of nonenrollment. After two years of non-enrollment, you must apply for admission to resume enrollment.

If you change your degree program while continuously enrolled, then the program requirements that apply to you are those in effect at the time you enroll in the first required course for that program. Previously completed coursework may not apply to the new requirements.

Information about the catalog year that applies to you is provided in the MyUMGC student portal.

The individual certificate coursework requirements specified in the following section are applicable to students enrolling on or after August 1, 2020.

Overall Requirements

1. You must be admitted as a UMGC student.
2. You may pursue a degree and certificate simultaneously or pursue a degree after completing the certificate.
3. For undergraduate certificates, no more than half of the total credits for any certificate may be earned through credit by examination, prior-learning portfolio credit, internship/Workplace Learning credit, or transfer credit from other schools, under current policies for such credit. Additional limitations may apply to specific programs; see description of individual certificate programs for details.
4. For graduate certificates, no more than 6 credits may be earned through transfer from other schools.
5. You must satisfy all required prerequisites for certificate courses. Some prerequisites may need to be fulfilled before beginning certificate coursework.
6. For undergraduate certificate programs, you must complete all required coursework with a minimum grade of C (2.0) in all courses. For graduate certificate programs, you must complete all required coursework with a minimum grade of B (3.0) in all courses.
7. Certificate courses may not be taken pass/fail.
8. Undergraduate students may only complete certificates at the undergraduate level. Graduate students may only complete certificates at the graduate level.

Time Limits for Graduate Certificates

All requirements established for the completion of a graduate certificate listed in this publication must be fulfilled within five consecutive years. The time limit is calculated from the term in which you successfully complete the first credit course that applies to the program. It does not include the introductory courses DCL 600 and CBR 600 but does include courses transferred from other institutions.

CERTIFICATE PROGRAMS

REQUIREMENTS AND CURRICULA

Second Certificate

If you have already received a certificate from UMGC, you can broaden your education by earning a second certificate in a different discipline. The same requirements detailed on the previous page apply for all certificates.

If you have earned a certificate from UMGC and want to pursue an additional certificate at UMGC at the same level, you may not apply coursework twice, i.e., double count, or repeat courses to fulfill the requirements of the additional credential. On a case-by-case basis, UMGC may consider limited substitutions for coursework that is required for more than one certificate to allow you to complete a second certificate, but if this is not possible, you will need to choose an alternate program if you wish to complete another credential at UMGC.

Before beginning work toward or registering for a second certificate, consult an academic advisor. Advisors will be glad to explain the requirements and situations that require department approval.

Curricula

The following undergraduate certificate programs are available:

- Computer Networking
- Digital Marketing
- Human Resource Management
- Management Foundations
- Project Management
- Spanish for Business and the Professions

The following graduate certificate programs are available:

- Acquisition and Supply Chain Management
- Bioinformatics
- Cloud Computing and Networking
- Cyber Operations
- Cybersecurity Management and Policy
- Cybersecurity Technology
- Digital Forensics and Cyber Investigation
- Foundations in Business Analytics
- Foundations of Human Resource Management
- Global Health Management
- Homeland Security Management
- Information Assurance
- Instructional Technology Integration
- Leadership and Management
- Learning Design and Technology
- Project Management
- Strategic Communications

CERTIFICATE PROGRAMS

UNDERGRADUATE

Computer Networking

A certificate in computer networking can supplement a bachelor's degree or help you build knowledge and experience in this in-demand field. Perfect for those who want to work as network administrators for business, government, or nonprofit organizations, the undergraduate certificate program in computer networking at UMGC can provide you with hands-on training in state-of-the-art computer technology.

Through the computer networking certificate program, you'll learn about the fundamental aspects of computer troubleshooting, networking, network security, interconnected Cisco devices, and cloud technologies. Plus, you'll get a chance to choose from upper-level courses so you can tailor your degree to your career goals.

Overall certificate requirements are listed on p. 161.

FIVE REQUIRED COURSES:

CMIT 202	Fundamentals of Computer Troubleshooting (3)
CMIT 265	Fundamentals of Networking (3)
CMIT 320	Network Security (3)
CMIT 350	Interconnecting Cisco Devices (3)
CMIT 326	Cloud Technologies (3)

A SUPPORTING ELECTIVE CHOSEN FROM ANY UPPER-LEVEL CMIT COURSES (3)

Total credits for certificate in Computer Networking: 18

Digital Marketing

Modern marketing poses new challenges. The UMGC digital marketing certificate integrates a foundational understanding of marketing principles with practical applications of digital techniques. In this program, you will learn how to create effective online content and use data visualization techniques to gain better insight into the customer experience.

The digital marketing certificate program focuses on how to use search and display marketing as an effective aspect of the integrated marketing strategy of an organization. You will learn the skills to run a simulated social media campaign on Facebook and understand the key metrics of optimization. The certificate program will also help advance your understanding of effective email marketing and managing social media communities.

Overall certificate requirements are listed on p. 161.

Note: All courses required for the Digital Marketing certificate can be applied to major course requirements for the BS in Marketing. Prior-learning portfolio credit, internship/Workplace Learning credit, course challenge, or transfer credit from other schools cannot be applied to this certificate.

SIX REQUIRED COURSES:

MRKT 311	Digital Marketing Principles (3)
MRKT 355	Integrated Marketing Communications in Digital Media (3)
MRKT 356	Email Marketing (3)
MRKT 394	Managing Customer Relationships in Digital Marketing (3)
MRKT 411	Consumer Behavior in Digital Media (3)
MRKT 458	Social Media Marketing (3)

Total credits for certificate in Digital Marketing: 18

CERTIFICATE PROGRAMS

UNDERGRADUATE

Human Resource Management

The human resource management certificate program at UMGC can help provide the theoretical and practical knowledge you need to advance and skills you can apply on the job right away.

In your HR management certificate program, you'll learn how to resolve problems in the workplace via conflict management, approach the workplace and employees with a sensitivity to cultural diversity, develop programs for rewarding employees, and help employees reach their full potential.

Overall certificate requirements are listed on p. 161.

FOUR REQUIRED COURSES:

BMGT 364	Management and Organization Theory (3)
HRMN 300	Human Resource Management (3)
HRMN 362	Labor Relations (3)
HRMN 400	Human Resource Management: Issues and Problems (3)

TWO SUPPORTING ELECTIVES (6) CHOSEN FROM THE FOLLOWING:

BMGT 365	Organizational Leadership
BMGT 464	Organizational Behavior
BMGT 465	Organizational Development and Transformation
HRMN 302	Organizational Communication
HRMN 367	Organizational Culture
HRMN 395	The Total Awards Approach to Compensation Management
HRMN 406	Employee Training and Development
HRMN 495	Contemporary Issues in Human Resource Management Practice

Total credits for certificate in Human Resource Management: 18

Management Foundations

Today, many workplaces require knowledge of management principles from multiple disciplines. The undergraduate certificate program in management foundations at UMGC can help you gain that expertise through a flexible course of study focused on decision making, problem solving, and leadership.

In your certificate courses, you'll focus on management principles and organizational dynamics for today's global, multicultural, and multinational organizations. You'll also benefit from a full spectrum of related business courses, covering statistics, business writing, marketing, finance, and organizational behavior.

Overall certificate requirements are listed on p. 161.

THREE REQUIRED COURSES:

BMGT 364	Management and Organization Theory (3)
MRKT 310	Marketing Principles (3)
HRMN 300	Human Resource Management (3)

A FINANCE COURSE (3) CHOSEN FROM THE FOLLOWING:

FINC 330	Business Finance
FINC 331	Finance for the Nonfinancial Manager

TWO SUPPORTING ELECTIVES (6) CHOSEN FROM THE FOLLOWING:

BMGT 317	Decision Making
BMGT 335	Small Business Management
BMGT 365	Organizational Leadership
BMGT 380	Business Law I
BMGT 464	Organizational Behavior
BMGT 465	Organizational Development and Transformation
BMGT 484	Managing Teams in Organizations
BMGT 496	Business Ethics
HRMN 302	Organizational Communication
HRMN 367	Organizational Culture
IFSM 300	Information Systems in Organizations

Total credits for certificate in Management Foundations: 18

CERTIFICATE PROGRAMS

UNDERGRADUATE

Project Management

The project management certificate program at UMGC can help prepare you for supervisory and midlevel management positions involving project management and team management. If you're a project manager, project team member, or otherwise assigned to project teams within a private- or public-sector organization, this certificate program can help you upgrade your skills with theoretical and practical knowledge to advance to a higher level.

In your certificate courses, you'll learn to bring a project full cycle from development to completion. You'll also work with a variety of tools designed specifically for project management and work hands-on with federal contracts to become familiar with processes and issues.

Overall certificate requirements are listed on p. 161.

FOUR REQUIRED COURSES:

BMGT 487	Project Management I (3)
BMGT 488	Project Management II (3)
IFSM 438	Information Systems Project Management (3)
IFSM 441	Agile Project Management (3)

TWO SUPPORTING ELECTIVES (6) CHOSEN FROM THE FOLLOWING:

BMGT 317	Decision Making
BMGT 339	Introduction to Federal Contracting
BMGT 365	Organizational Leadership
BMGT 484	Managing Teams in Organizations
IFSM 300	Information Systems in Organizations

Total credits for certificate in Project Management: 18

Spanish for Business and the Professions

Through the certificate program in Spanish for business and the professions at UMGC, you'll benefit from a combination of language and professional study that will build a foundation to enhance your résumé and prepare you to work and communicate in a variety of Spanish-speaking environments.

This program is ideal for those who are in a professional or social setting where Spanish is often spoken.

In your online Spanish classes, you'll not only learn the language but also explore contexts and practices specific to the Spanish-speaking world. You'll use your knowledge of diverse business cultures to communicate and interact effectively in a business environment.

Note: This certificate is not intended for students who already have native or near-native ability in Spanish. Students with prior experience in the Spanish language should contact the department at languages@umgc.edu about a placement test.

Overall certificate requirements are listed on p. 161.

FOUR COURSES (12) CHOSEN FROM THE FOLLOWING:

SPAN 211	Intermediate Spanish I
SPAN 212	Intermediate Spanish II
Any 300- or 400-level SPAN course taught in Spanish	

ONE OF THE FOLLOWING COURSES (4):

SPAN 418	Business Spanish I
SPAN 419	Business Spanish II

Total credits for certificate in Spanish for Business and the Professions: 16

CERTIFICATE PROGRAMS

GRADUATE

Acquisition and Supply Chain Management

This certificate program will help you build a foundation in the strategic and operational aspects of the end-to-end supply chain and procurement functions. You can learn best practices to use in your current role and develop new contacts through networking opportunities in our career-focused program. The curriculum features projects sponsored by companies and clients, as well as case studies of real supply chain management issues, so what you learn can be applied immediately in the workplace.

Overall certificate requirements are listed on p. 161.

INITIAL REQUIREMENT

(to be taken within the first 6 credits of study)

UCSP 615 Orientation to Graduate Studies at UMGC (0)

REQUIRED COURSES

ASCM 626	Purchasing and Materials Management (3)
ASCM 627	Legal Aspects of Contracting (3)
ASCM 628	Contract Pricing and Negotiations (3)
ASCM 629	Strategic Purchasing and Logistics (3)
ASCM 630	Commercial Transactions in a Technological Environment: Law, Management, and Technology (3)

Total credits for graduate certificate in Acquisition and Supply Chain Management: 15

COURSE SEQUENCING

ASCM 626 must be taken as one of the first two certificate courses.

ALTERNATE COURSE

ASCM 650 Legal Aspects of Contracting and Commercial Transactions (6) may be taken instead of ASCM 627 and ASCM 630.

Bioinformatics

Bioinformatics is a blend of biology, computer science, and mathematics. The certificate program in bioinformatics can help prepare you to become a qualified bioinformatics professional for public- or private-sector organizations. You'll gain cutting-edge knowledge, and you'll also develop experience in the field, which can give you an advantage in the job market.

The bioinformatics curriculum covers a broad range of subjects at the interface of molecular biology and computational science. You'll gain real-world experience through interactions with biotechnology companies and learn from case studies of companies tackling real challenges.

Overall certificate requirements are listed on p. 161.

INITIAL REQUIREMENT

(to be taken within the first 6 credits of study)

UCSP 615 Orientation to Graduate Studies at UMGC (0)

REQUIRED COURSES

BIOT 630	Introduction to Bioinformatics (3)
BIFS 613	Statistical Processes for Biotechnology (3)
BIFS 614	Data Structures and Algorithms (3)
BIFS 617	Advanced Bioinformatics (3)
DBST 651	Relational Database Systems (3)

Total credits for graduate certificate in Bioinformatics: 15

CERTIFICATE PROGRAMS

GRADUATE

Cloud Computing and Networking

In this certificate program, you'll master the concepts underlying cloud computing, cloud services, and cloud applications and understand the benefits and risks associated with moving to cloud-based services. You'll learn about different cloud development platforms and the fundamental processes associated with implementing and moving to cloud-based services.

Overall certificate requirements are listed on p. 161.

REQUIRED COURSES

DCL 600	Decisive Thinking, Communicating, and Leading (6)
CCA 610	Cloud Services and Technologies (6)
CCA 625	Network Engineering (6)

Total credits for the graduate certificate in Cloud Computing and Networking: 18

COURSE SEQUENCING

All courses must be taken in the order listed. You must complete each course with a grade of B or better to advance to the next course. The grade of C is not available for these courses.

Cyber Operations

In this program, you'll learn the essential aspects of cyber operations and related areas such as risk analysis, cyber defense, and cryptography. You'll also learn how to build defense as an integral part of a computing system and how to detect and defend against vulnerabilities and intrusions on a variety of platforms.

UMGC was named a National Center of Academic Excellence in Information Assurance and Cyber Defense Education by the National Security Agency and Department of Homeland Security.

Overall certificate requirements are listed on p. 161.

REQUIRED COURSES

DCL 600	Decisive Thinking, Communicating, and Leading (6)
COP 610	Foundations of Cyber Operations (6)
COP 620	Cybersecurity Defense (6)

Total credits for graduate certificate in Cyber Operations: 18

COURSE SEQUENCING

All courses must be taken in the order listed. You must complete each course with a grade of B or better to advance to the next course. The grade of C is not available for these courses.

CERTIFICATE PROGRAMS

GRADUATE

Cybersecurity Management and Policy

In this certificate program, you'll examine governmental and organizational responses to cybersecurity threats. You'll assess technical and organizational controls that can prevent and detect cyber intrusions and create and assess policies and procedures to restore operations after a cyber attack. You'll explore the legal foundations of cybersecurity as well as the roles of government, international, and private organizations. The program also provides you with a broad analytical framework for evaluating and solving cybersecurity problems. The curriculum features emerging topics in the field and was developed with the help of an advisory board of senior security executives, so what you're learning is on the cutting edge of cybersecurity.

UMGC was named a National Center of Academic Excellence in Information Assurance and Cyber Defense Education by the National Security Agency and Department of Homeland Security.

Overall certificate requirements are listed on p. 161.

REQUIRED COURSES

CBR 600	Communicating, Problem Solving, and Leading in Cybersecurity (6)
CMP 610	Foundations in Cybersecurity Management (6)
CMP 620	Cybersecurity Governance (6)

Total credits for graduate certificate in Cybersecurity Management and Policy: 18

COURSE SEQUENCING

All courses must be taken in the order listed. You must complete each course with a grade of B or better to advance to the next course. The grade of C is not available for these courses.

Cybersecurity Technology

The graduate certificate program in cybersecurity technology provides you with the most current knowledge and skills for protecting critical cyber infrastructure and assets. In this program, you'll learn concepts, real-world applications, and practical skills you can apply on the job. The curriculum features emerging topics in the field and was developed with the help of an advisory board of senior security executives, so what you're learning is on the cutting edge of cybersecurity.

UMGC was named a National Center of Academic Excellence in Information Assurance and Cyber Defense Education by the National Security Agency and Department of Homeland Security.

Overall certificate requirements are listed on p. 161.

REQUIRED COURSES

CBR 600	Communicating, Problem Solving, and Leading in Cybersecurity (6)
CST 610	Cyberspace and Cybersecurity Foundations (6)
CST 620	Prevention of Cyber Attack Methodologies (6)

Total credits for graduate certificate in Cybersecurity Technology: 18

COURSE SEQUENCING

All courses must be taken in the order listed. You must complete each course with a grade of B or better to advance to the next course. The grade of C is not available for these courses.

CERTIFICATE PROGRAMS

GRADUATE

Digital Forensics and Cyber Investigation

In this certificate program, you'll examine the foundations of digital forensics and become familiar with industry-standard tools and procedures that are used in conducting forensics investigations related to cybersecurity. Through this program, you'll learn how to secure and validate digital evidence, recover and analyze digital artifacts, and report and present findings in legal settings.

Overall certificate requirements are listed on p. 161.

REQUIRED COURSES

CBR 600	Communicating, Problem Solving, and Leading in Cybersecurity (6)
DFC 610	Cyberspace and Cybersecurity Foundations (6)
DFC 620	Digital Forensics Technology and Practices (6)

Total credits for graduate certificate in Digital Forensics and Cyber Investigation: 18

COURSE SEQUENCING

All courses must be taken in the order listed. You must complete each course with a grade of B or better to advance to the next course. The grade of C is not available for these courses.

Foundations in Business Analytics

The certificate program in business analytics combines study in technical and business disciplines to help you become a powerful data analyst with strong career potential. You'll learn how to manage and manipulate data and make strategic data-driven recommendations to influence business outcomes.

The curriculum is crafted, reviewed, and updated by a team of advisors and industry experts to ensure that what you learn aligns with the trends and technologies in the workplace today.

Overall certificate requirements are listed on p. 161.

INITIAL REQUIREMENT

(to be taken within the first 6 credits of study)

UCSP 615	Orientation to Graduate Studies at UMGC (0)
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REQUIRED COURSES

DATA 610	Decision Management Systems (6)
DATA 620	Data Management and Visualization (6)

Total credits for graduate certificate in Foundations in Business Analytics: 12

COURSE SEQUENCING

Courses must be taken in the order listed.

ADMISSION REQUIREMENTS

You must meet the same admission requirements as those for the degree in data analytics.

CERTIFICATE PROGRAMS

GRADUATE

Foundations of Human Resource Management

This certificate program is designed to help you gain practical, management-level experience in the theory, research, knowledge, and procedures used by HR executives, generalists, and specialists—and earn a credential that can help you stand out. The curriculum is designed to give you practical skills so you can become a strong decision maker and manager in any HR setting.

Overall certificate requirements are listed on p. 161.

INITIAL REQUIREMENT

(to be taken within the first 6 credits of study)

UCSP 615 Orientation to Graduate Studies at UMGC (0)

REQUIRED COURSES

MGMT 615 Intercultural Communication and Leadership (3)

HRMD 610 Issues and Practices in Human Resource Management (3)

HRMD 620 Employee and Labor Relations (3)

HRMD 650 Organizational Development and Change (3)

Total credits for graduate certificate in Foundations of Human Resource Management: 12

COURSE SEQUENCING

Courses should be taken in the order listed.

Global Health Management

The graduate certificate in global health management is designed to help healthcare professionals formulate global health services policies, improve quality of care and service delivery within different national health systems, plan health programs within diverse cultures, and manage global health programs. The curriculum covers international health organizations, health systems and policies in low- and middle-income countries, and management and financial skills.

This program is offered jointly with the University of Maryland, Baltimore (UMB) and combines UMB's extensive graduate clinical, practical, and global expertise with UMGC's broad online education experience and health management acumen. The first two credit courses follow the UMB graduate academic calendar and use UMB's learning management system, while the initial non-credit course and final credit course follow the UMGC academic calendar and use UMGC's learning management system.

Consult an advisor to determine whether you are academically or professionally prepared for this program.

Overall certificate requirements are listed on p. 161.

INITIAL REQUIREMENT

(to be taken within the first 6 credits of study)

UCSP 615 Orientation to Graduate Studies at UMGC (0)

REQUIRED COURSES

GHMT 610 Perspectives on Global Health (3)

GHMT 620 National and International Approaches to Healthcare Delivery (3)

GHMT 630 Strategic Management of Global Health Services (6)

Total credits for graduate certificate in Global Health Management: 12

COURSE SEQUENCING

Courses must be taken in the order listed.

CERTIFICATE PROGRAMS

GRADUATE

Homeland Security Management

In the graduate certificate program in homeland security management, you'll gain practical experience in performing security risk assessments, planning for and managing operational recovery, and developing strategies to protect people, facilities, and critical infrastructure.

Your coursework for the graduate certificate in homeland security management covers issues in emergency management, cybersecurity, bioterrorism, and energy security, as well as business management. You'll use real data from real crises in assignments and projects and practice making executive-level decisions.

Overall certificate requirements are listed on p. 161.

INITIAL REQUIREMENT

(to be taken within the first 6 credits of study)

UCSP 615 Orientation to Graduate Studies at UMGC (0)

REQUIRED COURSES

HSMN 610	Concepts in Homeland Security (3)
HSMN 625	Critical Infrastructures (3)
HSMN 630	Resilience Planning and Preparedness for Disaster Response and Recovery (3)
INFA 660	The Law, Regulation, and Ethics of Information Assurance (3)
EMAN 620	Information Technology in Emergency Management (3)

Total credits for graduate certificate in Homeland Security Management: 15

COURSE SEQUENCING

HSMN 610 must be taken as one of the first two credit-bearing courses in the program.

Information Assurance

You can gain a practical understanding of the principles of data protection, cybersecurity, and computer forensics with a graduate certificate in information assurance. We've developed the information assurance curriculum in conjunction with top employers, meaning you'll gain real-world experience through interactions with actual organizations and learn job-relevant skills from case studies of real information assurance crises. Your courses feature topics in network and internet security, intrusion detection and protection, cryptology and data protection, and computer forensics.

UMGC was named a National Center of Academic Excellence in Information Assurance and Cyber Defense Education by the National Security Agency and Department of Homeland Security.

Overall certificate requirements are listed on p. 161.

INITIAL REQUIREMENT

(to be taken within the first 6 credits of study)

UCSP 615 Orientation to Graduate Studies at UMGC (0)

REQUIRED COURSES

INFA 610	Foundations of Information Security and Assurance (3)
INFA 620	Network and Internet Security (3)
INFA 630	Intrusion Detection and Intrusion Prevention (3)
INFA 640	Cryptology and Data Protection (3)
INFA 650	Computer Forensics (3)

Total credits for graduate certificate in Information Assurance: 15

COURSE SEQUENCING

INFA 610 must be taken as one of the first two credit-bearing courses in the program.

CERTIFICATE PROGRAMS

GRADUATE

Instructional Technology Integration

In the instructional technology integration certificate program, you'll gain advanced skills in curriculum and instruction, technology integration, and leadership in pre-K through grade 12 education. You'll have an opportunity to develop expertise in current and emerging instructional technologies, gain a deep understanding of the role of technology in the contemporary school, and lead change efforts to improve student achievement.

The instructional technology integration courses, developed in conjunction with leaders in distance education, can help prepare you to effectively lead technology-rich learning environments, including mobile learning, blended learning, selecting tools, media integration, and standards-based course design.

Overall certificate requirements are listed on p. 161.

INITIAL REQUIREMENT

(to be taken within the first 6 credits of study)

UCSP 615 Orientation to Graduate Studies at UMGC (0)

REQUIRED COURSES

EDTC 600 Foundations of Technology in Teaching and Learning (3)

EDTC 605 Teaching Information and Media Literacies in the Digital World (3)

EDTC 610 Web-Based Teaching and Learning: Design and Pedagogy (3)

EDTC 615 Using Technology for Instructional Improvement: Research, Data, and Best Practices (3)

Total credits for graduate certificate in Instructional Technology Integration: 12

COURSE SEQUENCING

Courses must be taken in the order listed; sequential courses may be taken at the same time.

Leadership and Management

Prepare to become a leader in the workforce. The graduate certificate program in leadership and management is designed to provide you with the skills and leadership ability to navigate a variety of workplaces. You'll gain a foundation in organizational and management theory as well as skills in decision making, communication, strategic planning, and coaching and managing others.

The curriculum has been developed in conjunction with top employers. Topics such as organizational development and the management of change, leadership in diverse environments, employee relations, staffing, and human resource development will help you graduate with leadership skills you can apply immediately to the workplace.

Overall certificate requirements are listed on p. 161.

INITIAL REQUIREMENT

(to be taken within the first 6 credits of study)

UCSP 615 Orientation to Graduate Studies at UMGC (0)

REQUIRED COURSES

MGMT 630 Organizational Theory and Behavior (6)

HRMD 610 Issues and Practices in Human Resource Management (3)

HRMD 650 Organizational Development and Change (3)

Total credits for graduate certificate in Leadership and Management: 12

ALTERNATE COURSES

MGMT 610 Organizational Theory (3) and MGMT 615 Intercultural Communication and Leadership (3) may be taken instead of MGMT 630.

COURSE SEQUENCING

MGMT 630 (or MGMT 610) must be taken within the first 6 credits.

CERTIFICATE PROGRAMS

GRADUATE

Learning Design and Technology

In the learning design and technology certificate program, you will apply learning theory, emerging technologies, and contemporary design models to design, create, and publish effective online courses. Additionally, the program explores project management for designers, legal issues, and the learning design thinking approach to manage the design cycle.

This program will provide you with a broad instructional design framework and technical skills to create engaging online learning experiences for education and business.

The curriculum features emerging topics in the field and real-world projects to provide you with up-to-date, career-focused experience, so what you're learning is on the cutting edge of instructional design.

Overall certificate requirements are listed on p. 161.

REQUIRED COURSES

DCL 600	Decisive Thinking, Communicating, and Leading (6)
LDT 610	Learning Design and Digital Pedagogy (6)
LDT 620	Learning Design, Media, and Emerging Technologies (6)

Total credits for graduate certificate in Learning Design and Technology: 18

COURSE SEQUENCING

All courses must be taken in the order listed. You must complete each course with a grade of B or better to advance to the next course. The grade of C is not available for these courses.

Project Management

This certificate program allows you to develop advanced business management skills while building expertise for professional certification in project management. The curriculum is aligned with certifications from the Project Management Institute. Your courses will give you the tools you need to take on leadership roles in today's workplace. You'll also learn relevant skills you can apply on the job immediately.

Overall certificate requirements are listed on p. 161.

INITIAL REQUIREMENT

(to be taken within the first 6 credits of study)

UCSP 615 Orientation to Graduate Studies at UMGC (0)

REQUIRED COURSES

PMAN 634	Foundations of Project Management (3)
PMAN 635	Quantitative Methods in Project Management (3)
PMAN 637	Project Risk Management (3)
PMAN 638	Project Communication Management (3)
PMAN 639	Project Quality Management (3)

Total credits for graduate certificate in Project Management: 15

COURSE SEQUENCING

- PMAN 634 is prerequisite to all other PMAN courses and must be taken as the first certificate course.
- MGMT 640 or ITEC 640 (or an approved course in finance) and MGMT 650 (or an approved course in statistics) must be taken before PMAN 635.
- PMAN 635 must be taken before PMAN 637 and PMAN 639.

CERTIFICATE PROGRAMS

GRADUATE

Strategic Communications

In the new communications environment, public relations, marketing, and advertising fields converge. In the strategic communications certificate program, you'll gain proficiency in strategic communications planning. You'll learn how to conduct research, identify publics, and develop messages that will stimulate engagement. You'll also practice writing and creating appealing products that deliver those messages. In addition, you'll learn how different organizational functions interact with the strategic communications team to achieve organizational objectives.

Overall certificate requirements are listed on p. 161.

REQUIRED COURSES

DCL 600	Decisive Thinking, Communicating, and Leading (6)
MSC 610	Foundations of Strategic Communications (6)
MSC 620	Communications Techniques and Tactics (6)

Total credits for graduate certificate in Strategic Communications: 18

COURSE SEQUENCING

All courses must be taken in the order listed. You must complete each course with a grade of B or better to advance to the next course. The grade of C is not available for these courses.

COURSE INFORMATION

Course Numbering System

The following entries describe courses offered through University of Maryland Global Campus. Requirements pertain only to degrees conferred at UMGC. To determine how these courses may transfer and be applied toward degrees offered by other institutions, you should consult those institutions. Transferability is determined by the receiving institution. In transferring to UMGC—particularly from a community college—you should be careful not to enroll in courses that duplicate your previous studies.

Courses are arranged alphabetically by academic discipline or subject. The number of credits 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	Noncredit and institutional credit courses (which do not count toward any degree or certificate)
100–199	Primarily freshman-level courses
200–299	Primarily sophomore-level courses
300–399	Upper-level, primarily junior-level courses
400–499	Upper-level, primarily senior-level courses
500–599	Senior-level courses acceptable for credit toward some graduate degrees
600–898	Graduate-level credit
899	Doctoral thesis credit

Unit of Credit

The unit of credit defines the amount of university-level credit to be awarded for course completion, transfer of coursework from another institution, or evaluation of college-level prior learning. One credit is awarded on the basis of one of the following, according to the Code of Maryland Regulations:

- At least 15 hours (50 minutes each) of actual class meeting or the equivalent in guided learning activity (exclusive of registration, study days, and holidays)
- At least 30 hours (50 minutes each) of supervised laboratory or studio work (exclusive of registration, study days, and holidays)
- At least 45 hours (50 minutes each) of instructional situations, such as practica, internships, and cooperative education placements, when supervision is ensured and learning is documented
- Instruction delivered by electronic media based on the equivalent outcomes in student learning, including telelessons, classroom instruction, student consultation with instructors, and readings, when supervision is ensured and learning is documented

COURSE INFORMATION

Prerequisites

Prerequisites, normally stated in terms of numbered courses, represent the level of knowledge you are expected to have before enrolling in a given course. You may be barred from enrolling in or may be removed from courses for which you do not have the necessary prerequisites. Courses listed as corequisite are required and should be taken at the same time as the course described. Taking courses listed as recommended is advisable but not absolutely required.

It is your responsibility to check the prerequisites listed in the course description and make certain that you are academically prepared to take a course. If you did not take the prerequisite course recently, you should consult an advisor or the academic department about whether you are sufficiently prepared to perform well in a given course. Faculty members are not expected to repeat material listed as being prerequisite.

For undergraduate courses, prerequisites may also be fulfilled by Prior Learning credit for the appropriate course, earned through course-challenge assessments or Portfolio Assessment (described on p. 17). Advisors can explain the procedures for seeking this credit. Some courses are not eligible for challenge examination or Portfolio Assessment, and you may not take course-challenge assessments or seek Portfolio Assessment credit for lower-level courses that are prerequisite to courses for which you have already received credit.

WRTG 112 Academic Writing II is prerequisite to any higher-level course in English, communication studies, and writing, as well as many other advanced courses. MATH 107 College Algebra is prerequisite to any higher-level course in mathematics. Many other prerequisites for advanced courses may be found in the course descriptions.

Placement tests are not required for introductory writing (English composition) or mathematics courses (e.g., MATH 105, MATH 107, MATH 115, or STAT 200), nor do these courses require completion of prerequisite coursework. If you have prior experience in a foreign language, you should take a placement test to assess appropriate level. For information on language placement tests, email the department at languages@umgc.edu.

Key to Course Descriptions



(Formerly CCJS 496.)¹ Prerequisite: CCJS 100, CCJS 101, CCJS 105, CSIA 301, or CSIA 310.² Recommended: CCJS 234. An examination of crimes involving the use of computers. Topics include federal and state laws and investigative and preventive methods used to secure computers. Case studies emphasize security.³ Students may receive credit for only one of the following courses: CCJS 390, CCJS 496, or CCJS 498C.⁴

1. Explanatory material, if needed, may
 - Explain course sequence, purpose, or audience.
 - Identify courses fulfilling general education requirements (listed on p. 41).
 - Identify courses requiring a special fee, equipment, or materials.
2. Prerequisites represent the level of knowledge a student should have acquired before enrolling in this course. A prerequisite is usually stated as a specific numbered course; sometimes the prerequisite calls for a specific course "or equivalent experience."
3. The course description describes the focus and level of the course.
4. Statements beginning "Students may receive credit for only one of the following courses" are designed to avoid course duplication and, therefore, loss of credit. The courses listed are courses that duplicate or significantly overlap content. If a course in the list is not described elsewhere in the catalog, that means that the course has changed designator or number over the years or that the course is not offered at all UMGC locations.

COURSE INFORMATION

UNDERGRADUATE COURSE DESCRIPTIONS

Index to Course Descriptions

The courses summarized on the following pages are listed alphabetically by discipline or subject, as follows.

You should check the course descriptions carefully to avoid duplicating previous coursework. UMGC will not award credit for courses that repeat material you have already been credited with learning.

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* Only a limited number of courses are available each session in this discipline.

COURSE INFORMATION

UNDERGRADUATE COURSE DESCRIPTIONS

Accounting

ACCT 220 Principles of Accounting I (3)

An introduction to the basic theory and techniques of contemporary financial accounting. The objective is to identify the fundamental principles of accounting, identify and analyze business transactions, prepare financial statements, and communicate this information to users with different needs. Topics include the accounting cycle, transactions, 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 BMGT 220.

ACCT 221 Principles of Accounting II (3)

Prerequisite: ACCT 220. Further study of contemporary accounting practices, with an emphasis on financial and managerial accounting. The goal is to identify and analyze business transactions, define the characteristics of business entities, identify the interdependency of financial statements, employ managerial accounting techniques, and communicate this information to users with different needs. Financial accounting topics include liabilities, equities, investments, and business entities. Managerial accounting topics include job order and process costing, cost-volume-profit analysis, and budgets. Students may receive credit for only one of the following courses: ACCT 221 or BMGT 221.

ACCT 301 Accounting for Nonaccounting Managers (3)

(May not be applied toward a major in accounting.) A survey of accounting principles relevant in making business decisions on the basis of financial information. The aim is to apply critical thinking skills and ethical principles to accounting issues. Topics include internal controls, financial reporting, analysis of financial statements, and elements of managerial accounting and budgeting. Students may receive credit for only one of the following courses: ACCT 301, MGMT 301, or MGST 301.

ACCT 310 Intermediate Accounting I (3)

(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 221 within the last two years may have difficulty.) Prerequisite: ACCT 221. A comprehensive analysis of financial accounting topics related to preparing financial statements for external reporting. The objective is to identify and analyze complex business transactions and their impact on financial statements. Students may receive credit for only one of the following courses: ACCT 310 or BMGT 310.

ACCT 311 Intermediate Accounting II (3)

(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 310 within the last two years may have difficulty.) Prerequisite: ACCT 310. A comprehensive analysis of financial accounting topics, including preparation of financial statements and external reports. The aim is to identify and analyze complex business transactions and their impact on financial statements. Students may receive credit for only one of the following courses: ACCT 311 or BMGT 311.

ACCT 320 Fraud Detection and Deterrence (3)

Prerequisite: ACCT 220 or ACCT 301. A study of the principles behind and standards for examining, identifying, detecting, and deterring fraud. The objective is to differentiate types of fraud, assess organizational characteristics conducive to fraud, and develop a plan to detect and deter fraud. Topics include the fraud triangle, cash larceny, check tampering, skimming, register disbursement schemes, cash receipts schemes, billing schemes, payroll and expense reimbursement issues, asset misappropriations, corruption, accounting principles and fraud, fraudulent financial statements, whistleblowing, interviewing witnesses, and writing reports.

ACCT 321 Cost Accounting (3)

Prerequisite: ACCT 221. A study of basic cost accounting concepts. The goal is to apply basic cost accounting concepts, use technology to prepare financial deliverables, evaluate business and financial data, and communicate financial information. Topics include the evaluation of business and financial data to make profit-maximizing decisions, ethics, and corporate social responsibility. Discussion also covers the role of accountants in decision making; cost behavior; cost planning and control; and costing methods, such as standard costing, budgeting, and inventory valuation. Students may receive credit for only one of the following courses: ACCT 321 or BMGT 321.

ACCT 323 Federal Income Tax I (3)

Prerequisite: ACCT 220. Recommended: ACCT 310 and ACCT 311. A study of federal income tax for individuals and other entities. The objective is to identify the legislative process, conduct tax research, evaluate tax implications, and complete an individual tax return. Topics include the legislative process, tax policy, research, and the evaluation of transactions and decisions for planning and compliance. Emphasis is on ethics and professional responsibilities. Students may receive credit for only one of the following courses: ACCT 323 or BMGT 323.

COURSE INFORMATION

UNDERGRADUATE COURSE DESCRIPTIONS

ACCT 326 Accounting Information Systems (3)

Prerequisite: ACCT 221. An introduction to accounting information systems (AIS) concepts. The objective is to evaluate how AIS tools are used to record, process, and analyze financial data; determine how best to integrate AIS tools and processes in a given organization; review and recommend controls to secure AIS applications and processes; and evaluate how technology can be used in AIS applications. Topics include transactional processing concepts and core AIS transactional cycles; basic control frameworks used to secure AIS applications and processes; strategies for implementing or upgrading AIS applications; information technology and accounting standards; and e-commerce and e-business. Students may receive credit for only one of the following courses: ACCT 326, BMGT 320, or BMGT 326.

ACCT 350 Federal Financial Management (3)

Prerequisite: ACCT 220 or ACCT 301. Analysis and discussion of issues relating to federal financial management. The goal is to apply knowledge of the federal process to accounting practice, administer federal grants and contracts, and research federal laws and regulations. Topics include the CFO Act, the federal budget, federal contracts and grants, and federal financial and information systems. Discussion also covers detection and deterrence of fraud, waste, and abuse.

ACCT 410 Accounting for Government and Not-for-Profit Organizations (3)

Prerequisite: ACCT 310. An introduction to the theory and practice of accounting as applied to governmental entities and not-for-profit organizations. The objective is to evaluate transactions, prepare and analyze financial statements, write financial briefings, and apply accounting rules and procedures. Topics include the evaluation and preparation of reports required for governmental and not-for-profit entities. Students may receive credit for only one of the following courses: ACCT 410 or BMGT 410.

ACCT 411 Ethics and Professionalism in Accounting (3)

Prerequisite: ACCT 311. An examination of the importance of ethical behavior in organizations and for the accounting and auditing professions. The goal is to identify ethical dilemmas, research regulations, and apply problem-solving methodology to resolve unethical situations. Discussion covers the AICPA Code of Professional Conduct and the ethical codes and requirements of other standard-setting organizations. Corporate governance and legal and regulatory obligations are explored within an ethical framework. Issues related to accounting ethics and professionalism are examined and analyzed using philosophical models and ethical theories.

ACCT 417 Federal Income Tax II (3)

(Strongly recommended for students seeking careers as CPAs.) Prerequisites: ACCT 311 and ACCT 323. A continuing study of federal income taxation as applied to different business entities, including corporations, flow-through entities, estates, and trusts. The aim is to analyze tax planning and compliance issues, conduct tax research, analyze and define tax implications, and evaluate and communicate tax implications. Discussion covers tax research, planning, procedure, compliance, ethics, and professional responsibility. Topics also include the tax implications of financial and business decisions and transactions for various entities. Students may receive credit for only one of the following courses: ACCT 417 or BMGT 417.

ACCT 422 Auditing Theory and Practice (3)

Prerequisite: ACCT 311. Recommended: ACCT 326. A study of the auditing profession, audit process, and other assurance and nonassurance services related to the CPA profession. The objective is to design an audit plan, apply audit procedures, evaluate audit findings, and assess the impact of standards and emerging issues. Topics include generally accepted auditing standards, tests of controls and substantive tests, statistical sampling, 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 BMGT 422.

ACCT 424 Advanced Accounting (3)

Prerequisite: ACCT 311. Recommended: ACCT 326. A study of advanced accounting theory, applied to specialized topics and contemporary problems. The aim is to prepare, present, and explain financial statements in five sectors—consolidated, international, partnership, not-for-profit, and state and local governments—and analyze a firm's dissolution or reorganization. Emphasis is on consolidated statements and partnership accounting. 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 BMGT 424.

ACCT 425 International Accounting (3)

Prerequisite: ACCT 311. A study of accounting in a multinational context. Discussion covers the historical development and current status of international financial reporting standards. The goal is to recognize the influence of politics and culture on the development of accounting systems, prepare financial statements according to international financial reporting standards, and analyze the financial statements of a multinational enterprise. Strategies

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to manage and hedge against foreign currency exposure are developed. Topics include evolving international accounting and reporting standards, foreign exchange and taxation, intercompany transfer pricing, and emerging issues in international accounting. Students may receive credit for only one of the following courses: ACCT 425 or ACCT 498A.

ACCT 436 Internal Auditing (3)

(Designed to align with the standards of the Institute of Internal Auditors and help prepare for the Certified Internal Auditor examination.) Prerequisite: ACCT 311. An exploration of the role of internal auditing and its consultative role in the management of risk. The aim is to identify the professional and ethical standards that apply to internal auditors; design, plan, and apply audit procedures; assess the impact of emerging issues and trends; and identify internal control deficiencies. Topics include internal auditing standards, scope, responsibilities, ethics, controls, techniques, and reporting practices. Practice in PC-based software such as ACL and IDEA is provided. Students may receive credit for only one of the following courses: ACCT 436, ACCT 498E, or BMGT 498E.

ACCT 438 Fraud and Forensic Accounting (3)

Prerequisite: ACCT 311. An analysis and discussion of issues relating to fraud and forensic accounting. The objective is to identify the resources for detecting fraud, evaluate the conditions that encourage fraud, and design effective fraud detection and prevention plans. Focus is on the perspectives of public, internal, and private accountants. Discussion covers the principles and standards for proactive and reactive investigation, as well as detection and control of fraud.

ACCT 440 Forensic and Investigative Accounting (3)

Prerequisite: ACCT 320 or ACCT 438. An analysis and discussion of issues relating to forensic and investigative accounting. The goal is to research and describe the use of forensic accounting evidence, identify the role of the forensic accountant, apply investigative and forensic accounting practices, and present forensic accounting evidence as an expert witness. Forensic and investigative methods, including use of auditing and technology, are demonstrated. Topics include criminal and civil litigation support, rules of evidence, and accreditation of expert witnesses.

ACCT 452 Federal Auditing (3)

Prerequisite: ACCT 221. Recommended: ACCT 422 or ACCT 436. An overview of the federal auditing life cycle. The objective is to plan, manage, and execute a federal audit; identify and evaluate program and financial risks; and identify and recommend enhancements to operations and technology. Topics include planning and executing a federal audit, communicating audit findings to stakeholders, providing advisory support, evaluating program and financial risks, identifying enhancements to technology, maxi-

mizing economy and efficiency through the audit process, and minimizing fraud waste and abuse. Discussion also covers the auditing of grants and contracts.

ACCT 486A Workplace Learning in Accounting (3)

Prerequisites: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

ACCT 486B Workplace Learning in Accounting (6)

Prerequisites: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

ACCT 495 Contemporary Issues in Accounting Practice (3)

(Intended as a final, capstone course to be taken in a student's last 15 credits.) Prerequisites: ACCT 311, ACCT 321, ACCT 422, and BMGT 364. An intensive study of accounting that integrates knowledge gained through previous coursework and experience and builds on that conceptual foundation through integrative analysis, practical application, and critical thinking. The aim is to use current technology, research, and analytical tools proficiently to perform accounting and business functions, work collaboratively, facilitate decision making, and communicate to financial and nonfinancial audiences. Focus is on researching and analyzing emerging issues in accounting, business transactions, and financing. Students may receive credit for only one of the following courses: ACCT 495 or ACCT 498C.

African American Studies

AASP 201 Introduction to African American Studies (3)

(Fulfills the general education requirement in behavioral and social sciences.) An interdisciplinary study of significant aspects of African American history and culture, emphasizing the development of African American communities from the Middle Passage to the present. The objective is to conduct research, apply critical thinking skills, and articulate diverse historical perspectives in the context of African American history and culture. Topics include definitions of African American identity, influences, and achievements within American culture, as well as issues confronting African Americans. Students may receive credit for only one of the following courses: AASP 100 or AASP 201.

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Anthropology

ANTH 101 Introduction to Biological 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. The aim is to apply anthropological knowledge to understanding human origins and how human populations adapt to the environment. Discussion examines human evolution and adaptation, including bio-cultural patterns in humans and other primates. Students who complete both ANTH 101 and ANTH 102 may not receive credit for ANTH 340, BEHS 340, or BEHS 341.

ANTH 102 Introduction to Cultural Anthropology (3)

A survey of social and cultural principles inherent in ethnographic descriptions. The objective is to apply anthropological knowledge of human behavior to everyday situations and problems. Students who complete both ANTH 101 and ANTH 102 may not receive credit for ANTH 340, BEHS 340, or BEHS 341.

ANTH 298 Special Topics in Anthropology (1–3)

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

ANTH 345 World Prehistory and Archaeology (3)

An intermediate-level exploration of world prehistory and archaeology. The goal is to analyze the cultural and subsistence patterns of prehistoric humans in order to relate these patterns to contemporary human societies and populations. Discussion includes archaeological theories and methods; subsistence strategies; and the application of archaeology to community, regional, and global issues and concerns.

ANTH 346 Anthropology of Language and Communication (3)

An intermediate-level anthropological study of language, communication, and culture. The aim is to assess how the concepts, approaches, and methods of linguistic anthropology explain communication in changing cultural environments, recognizing how language both shapes and is shaped by culture. Topics include the evolution and history of human language, structural elements of verbal and nonverbal language, language as social action, speech communities, and linguistic diversity in the contemporary world.

ANTH 350 Health, Illness, and Healing (3)

Recommended: ANTH 102. An overview of health, illness, and healing from a cross-cultural perspective. The objective is to apply the perspectives of medical anthropology to promote individual

and public health in local, national, and global contexts. Topics include cultural and social influences on health and healing, the experience and meaning of illness, and current issues in public and global health.

ANTH 351 Anthropology in Forensic Investigations (3)

Recommended: BIOL 160 or BIOL 201. An introduction to the application of forensic anthropology, designed to provide a basic understanding of the analysis of human skeletal remains and how forensic anthropologists work as part of the forensic team. The aim is to understand how anthropologists apply scientific principles and processes to the collection and analysis of evidence and how they communicate their conclusions. Topics include the scope of anthropology within the context of forensic investigations, human skeletal biology, research methods, scientific reporting, crime scene protocols, and the application of professional standards and ethics. Specific examples of forensic anthropology cases are reviewed.

ANTH 398 Intermediate Special Topics in Anthropology (1–3)

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

ANTH 417 Peoples and Cultures of East Asia (3)

An advanced anthropological study of the peoples and cultures of East Asia, focusing on China, Japan, and Korea. The aim is to apply anthropological theories and methods to the interpretation of contemporary East Asian cultures, relate family structure to individual choices and social interactions in East Asian cultures, and analyze how ethnic and national identities and regional differences affect regional and global interactions. Topics include urbanization, social values, social change, and the role of East Asia in the modern world.

Arabic

ARAB 111 Elementary Arabic I (3)

(Not open to native speakers of Arabic; assumes no prior knowledge of Arabic. Students with prior experience with the Arabic language should take a placement test to assess appropriate level.) An introduction to spoken and written modern standard Arabic. The objective is to communicate in Arabic in some concrete, real-life situations, using culturally appropriate language and etiquette. Ample practice in Arabic pronunciation and the structures needed for everyday communication is provided.

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ARAB 112 Elementary Arabic II (3)

(Not open to native speakers of Arabic; assumes no prior knowledge of Arabic. Students with prior experience with the Arabic language should take a placement test to assess appropriate level.) Prerequisite: ARAB 111 or appropriate score on a placement test. An introduction to spoken and written modern standard Arabic. The objective is to communicate in Arabic in some concrete, real-life situations, using culturally appropriate language and etiquette. Ample practice in Arabic pronunciation and the structures needed for everyday communication is provided.

ARAB 114 Elementary Arabic III (3)

(Not open to native speakers of Arabic.) Prerequisite: ARAB 112 or appropriate score on a placement test. Further development of skills in elementary spoken and written modern standard Arabic. The aim is to communicate in Arabic in a variety of real-life situations, using culturally appropriate language. Practice is provided in improving pronunciation and developing the oral and written skills used in everyday communication.

ARAB 115 Elementary Arabic IV (3)

(Not open to native speakers of Arabic.) Prerequisite: ARAB 114 or appropriate score on a placement test. Further development of skills in elementary spoken and written modern standard Arabic. The objective is to interact effectively with native Arabic speakers in a variety of real-life situations, using culturally appropriate language. Practice in fine-tuning pronunciation and applying language skills to a range of contexts is provided.

ARAB 333 Middle Eastern Cultures (3)

(Conducted in English.) A project-driven and discussion-based study of Middle Eastern cultures. The aim is to demonstrate cultural competence by explaining and analyzing Middle Eastern cultures through a variety of perspectives. Topics include religion, cultural practices, history, geography, and societies of the Middle East. Students may receive credit for only one of the following courses: ARAB 333 or ARAB 334.

Art

ARTT 110 Introduction to Drawing (3)

A hands-on introduction to various drawing media and related techniques. The objective is to translate the three-dimensional world into two dimensions, communicate through a visual medium, and critique visual works of art. Projects are based on nature and still life.

ARTT 120 Design I: Arrangement and Color (3)

Prerequisite: GRCO 100. A project-driven study of the design elements of a composition as they relate to its overall expression. The aim is to apply elements and principles of design, including color theory, to create a variety of compositions that effectively communicate ideas and emotions.

ARTT 152 Basics of Photography (3)

(Access to a digital camera with manual settings required.) An introduction to basic photographic procedures with an emphasis on composing, taking, and editing photographs. Discussion covers the historical development of photography. Students may receive credit for only one of the following courses: ARTT 152 or PHOT 198.

ARTT 210 Intermediate Drawing (3)

Prerequisite: ARTT 110. A continuing examination of materials and techniques of drawing. The objective is to apply drawing techniques and visual principles to various subjects, communicate through drawing, and critique works of art. More advanced media, compositions, techniques, and subjects are explored. Students may receive credit for only one of the following courses: ARTS 210 or ARTT 210.

ARTT 320 Painting (3)

Prerequisite: ARTT 110. Practice in the basic tools and vocabulary of painting. The goal is to apply an understanding of compositional strategies, visual principles, and basic materials and techniques to produce paintings using oil/watercolor/acrylic paints.

ARTT 428 Advanced Painting (3)

Prerequisite: ARTT 320. Creation of original compositions based on the figure, nature, and still life, as well as expressive painting. The goal is to paint in a variety of styles and techniques, work with more complex forms (including drapery, transparency, and reflections), and work in landscape and/or figure in space painting. Emphasis is on the development of personal directions. May be repeated to a maximum of 12 credits.

Art History

ARTH 204 Film and American Culture Studies (3)

An introductory study of the relationship between film and American culture. The objective is to improve one's ability to understand a film's message and to expand one's cultural awareness. Discussion covers the way one of our most popular media portrays American culture and influences our interpretation of cultural issues. Various films, filmmaking issues, and representative filmmakers' works are examined. Students may receive credit for only one of the following courses: ARTH 204, AMST 204, or HUMN 204.

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ARTH 334 Understanding Movies (3)

(Formerly HUMN 334.) 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 by weighing the special relationship between cinema and literature. Students may receive credit for only one of the following courses: ARTH 334, HUMN 334, or HUMN 498D.

ARTH 372 History of Western Art I (3)

(Formerly ARTH 370.) A survey of the development of the Western tradition of visual art in its various forms that examines and compares the expression of cultural and aesthetic values in different parts of the Western world from prehistory through the Middle Ages. The objective is to apply principles of visual literacy; describe, analyze, and contextualize content and elements of art; and differentiate historic periods and styles of art. Students may receive credit for only one of the following courses: ARTH 370 or ARTH 372.

ARTH 373 History of Western Art II (3)

(Formerly ARTH 371.) A survey of the development of visual art of the Western world in its various forms that examines and compares the expression of cultural and aesthetic values in Europe and the United States from 1300 to the present day. The aim is to apply principles of visual literacy; describe, analyze, and contextualize content and elements of art; and differentiate historic periods and styles of art. Students may receive credit for only one of the following courses: ARTH 371 or ARTH 373.

ARTH 375 History of Graphic Art (3)

Recommended: ARTH 204. A survey of the development of graphic design with an emphasis on the historical, technological, and sociological influences on the production of typography and the aesthetics of visual media. The aim is to recognize the philosophy of graphic arts, identify various movements within the field, and analyze the impact of graphic arts on society. Topics include major works and artists and cultural, social, and religious movements and their impact on graphic arts.

ARTH 478 History of Women in the Visual Arts (3)

A survey of the work, roles, and representations of women in the visual arts, from the 16th century to the present. The aim is to evaluate the role of women artists and assess the impact of gender on visual arts as a way to understand the complexity and diversity of human experience and culture. Emphasis is on women working in the tradition of Western art in painting, sculpture, the decorative arts, performance art, photography, and other media and on how gender affected their art and their careers.

Asian Studies

ASTD 135 Introduction to Japanese Language and Culture (3)

(Formerly JAPN 105. Not open to students with substantial prior experience with Japanese language or culture; assumes no prior knowledge of Japanese. Students with prior experience with the Japanese language should take a placement test to assess appropriate level.) A hands-on, project-based introduction to Japanese language and culture. The goal is to develop cultural competency and familiarity with the history, geography, and culture of Japan and to use basic language skills to function effectively and appropriately in everyday life in Japan. Students may receive credit for only one of the following courses: ASTD 135 or JAPN 105.

ASTD 155 Introduction to Korean Language and Culture (3)

(Not open to students with substantial prior experience with Korean language or culture; assumes no prior knowledge of Korean. Students with prior experience with the Korean language should take a placement test to assess appropriate level.) A hands-on, project-based introduction to Korean language and culture. The goal is to develop cultural competence in personal interactions; demonstrate knowledge of the history, geography, and culture of Korea; and use basic language skills to function effectively and appropriately in everyday activities in Korea. Students may receive credit for only one of the following courses: ASTD 155 or KORN 105.

ASTD 284 Foundations of East Asian Civilization (3)

(Formerly HIST 284.) An interdisciplinary survey of the foundations of East Asian civilization from its beginnings to the 17th century. The goal is to analyze philosophical, religious, artistic, economic, and political aspects of the region's historical experience. Focus is on China, Korea, and Japan. Topics include East Asian belief systems (including Confucianism and Buddhism), the dynastic cycle, relations between steppe and agrarian societies, warrior and scholar-gentry cultures, technological change and economic development, and the role of class and gender in early East Asian society. Students may receive credit for only one of the following courses: ASTD 150, ASTD 284, or HIST 284.

ASTD 285 Introduction to Modern East Asia (3)

(Formerly HIST 285.) An interdisciplinary survey of East Asia from the late 17th century—beginning with Ming-Qing China, Tokugawa Japan, and Choson Korea—to the present. The objective is to trace how transformations on global, regional, and local levels led to the development of the modern nation-states of East Asia

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and to examine how those developments affected the culture of the areas. Topics include the rise of imperialism and colonialism; cross-cultural interactions; and issues of gender, class, and ethnicity in East Asian culture. Students may receive credit for only one of the following courses: ASTD 160, ASTD 285, or HIST 285.

ASTD 302 The Two Koreas: Problems and Prospects (3)

Prerequisite: Any writing course. Recommended: ASTD 284 or ASTD 285. A thematic study of the two Koreas from historical, social, and foreign policy perspectives. The objective is to examine scholarly viewpoints on key issues of Korean history and division; articulate key factors that shape U.S. and regional policy toward North Korea; distinguish between different sources of information on the two Koreas; and interpret regional developments based on knowledge of Korean issues. Topics include the “hermit kingdom” myth; liberation, division, and war; the economic “miracle”; North Korean leadership; South and North Korean foreign relations; North Korea as a nuclear threat; and prospects for a unified Korea. Focus is on developing a stronger understanding of the two Koreas for practical and professional application. Assignments require research, analysis, and a written policy or strategy recommendation.

ASTD 370 Interpreting Contemporary China (3)

Prerequisite: Any writing course. Recommended: ASTD 285. A thematic study of contemporary China from political, economic, social, and foreign policy perspectives. The objective is to identify decision-making authorities, interpret major influences on the Chinese economy, appraise the impact of grass-roots social movements, and distinguish factors that drive China’s foreign policy. Focus is on developing engagement strategies for various professional applications. Assignments require research, analysis, and a written policy or strategy recommendation (e.g., a policy paper or business strategy plan).

ASTD 398 Advanced Special Topics in Asian Studies (3)

An investigation of a special topic, problem, or issue of particular relevance to countries or peoples of the Pacific Rim or Indian Ocean. Typical investigations include historical or contemporary subjects focusing on cultural, economic, military, or political issues. Assignments include advanced reading and research.

ASTD 485 Issues in East Asian Studies (3)

(Intended as a final, capstone course to be taken in a student’s last 15 credits.) Prerequisites: ASTD 284 (or ASTD 150) and ASTD 285 (or ASTD 160). A project-based interdisciplinary study of East Asia that integrates knowledge gained through previous coursework and experience and builds on that conceptual foundation through integrative analysis, practical application, and critical thinking. Discussion covers emerging issues and current scholarship in East Asian studies.

Astronomy

ASTR 100 Introduction to Astronomy (3)

Prerequisite: MATH 105, STAT 200, or a higher MATH or STAT course. An examination of the major areas of astronomy. Topics include the solar system, stars and stellar evolution, and galaxies. Current topics in astronomy are also discussed. The objective is to use scientific and quantitative reasoning to make informed decisions about topics related to space science. Students may receive credit for only one of the following courses: ASTR 100, ASTR 101, ASTR 120, or GNSC 125.

Behavioral and Social Sciences

BEHS 103 Technology in Contemporary Society (3)

An interdisciplinary introduction to the role of technology in contemporary society. The aim is to apply principles and concepts from a variety of social science disciplines (e.g., anthropology, sociology, psychology, and gerontology) to explore the influence of technology on society and the effect of technological change on our social lives, including our interpersonal relationships, work, culture, and society. Topics include the way technology changes relationships, the cumulative advantages and disadvantages associated with technology, digital natives versus digital immigrants, the pace of technological change, changes to the nature of how people learn and think, and the meaning of technology in society.

BEHS 210 Introduction to Social Sciences (3)

Recommended: WRTG 112, WRTG 101, or WRTG 101S. An interdisciplinary introduction to the study of society that addresses the issue of what it is to be a social scientist from a variety of social science perspectives. The objective is to use the empirical and theoretical contributions of the different social science disciplines to better understand the nature of society. Topics include research methods in the social science disciplines and the relationships among the different social science disciplines. Discussion surveys the various social sciences, including psychology, sociology, anthropology, and gerontology. A historical overview of the development of the social sciences is provided, and an analysis of social phenomena that integrates insights from the social sciences is presented. Students may receive credit for only one of the following courses: BEHS 201 or BEHS 210.

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BEHS 220 Diversity Awareness (3)

An examination of the many dimensions of diversity within the framework of modern culture and principles of social justice. The aim is to interact and communicate effectively and appropriately within a diverse society. Emphasis is on raising consciousness of diversity and using critical thinking with respect to stereotypes, prejudice, and discrimination. Discussion covers issues related to age, disability, race, religion, gender, sexual orientation, national origin, and socioeconomic status, as well as current issues in diversity studies.

BEHS 300 Research Methods in the Social Sciences (3)

Prerequisites: BEHS 210 and STAT 200. An introduction to the core concepts, research methods, and skills that apply to work in the social sciences. The goal is to begin the process of conducting social science research. Discussion covers the scientific method, as well as quantitative and qualitative research methods specific to the social science disciplines of psychology, sociology, anthropology, and gerontology. Topics also include reliability and validity of data, correlation versus causality, research ethics, institutional review boards, proposal writing, and the unique contribution of “interdisciplinarity” in social science research.

BEHS 320 Disability Studies (3)

An interdisciplinary study of disability issues that focuses on understanding and evaluating traditional and current interpretations of the meaning of disability. The goal is to interact and communicate effectively and appropriately in situations relevant to issues of disability. Topics include the construction of images of people with disabilities, attitudes and actions toward those with disabilities, approaches taken by major social institutions (e.g., law, education, religion, the arts) toward disability, distinctions between different models of disability, and current issues in disability studies.

BEHS 343 Parenting Today (3)

An overview of critical issues of parenthood in the United States today using an interdisciplinary perspective. The objective is to apply research and theory in family development to practical decision making. Topics include characteristics of effective parenting styles, disciplinary strategies, the role of diverse family structures, and the social forces that cause changes in parent/child relationships.

BEHS 364 Alcohol in U.S. Society (3)

An interdisciplinary examination of the use and abuse of the drug alcohol from the perspectives of psychology, physiology, sociology, medicine, counseling, law, and public health. The aim is to examine current research and trends in the treatment of alcohol abuse and dependence (including prevention, assessment, and

intervention) and to explore the history, etiology, effects, and current treatment practices. The effects of alcohol throughout the lifespan are explored in relation to gender, families, race, age, the workplace, and public safety.

BEHS 380 End of Life: Issues and Perspectives (3)

(Formerly GERO 380.) An exploration of death, dying, and bereavement from social, cultural, psychological, biomedical, economic, and historical perspectives. The objective is to clarify one’s personal perspective on death and dying, based on a better understanding of end-of-life planning issues, stages of death, and models of care for the dying. Topics include definitions of death, needs of the dying and their support systems, pain management, palliative and hospice care, end-of-life decision making, cultural meanings and rituals, suicide, euthanasia, homicide, natural disaster, the economics of death and life-sustaining care, family conflict and coping, bereavement, and grieving. Students may earn credit for only one of the following courses: BEHS 380 or GERO 380.

BEHS 453 Domestic Violence (3)

An examination of the complex phenomenon of domestic violence from a multidisciplinary perspective that integrates individual, social, political, cultural/ethnic, economic, legal, and medical viewpoints. The aim is to evaluate research and theoretical models of domestic violence; assess institutional, community, and individual responses to domestic violence; and locate effective resources. Topics include neglect and the physical, emotional, and sexual abuse of children, partners, and the elderly. Discussion also covers response systems and mechanisms to prevent and treat violence. Students may receive credit for only one of the following courses: BEHS 453 or BEHS 454.

BEHS 486A Workplace Learning in Behavioral and Social Sciences (3)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

BEHS 486B Workplace Learning in Behavioral and Social Sciences (6)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

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BEHS 495 Advanced Seminar in Social Sciences (3)

(Intended as a final, capstone course to be taken in a student's last 15 credits.) Prerequisite: BEHS 300 and completion of all requirements for the social science major. A study of the social sciences that integrates perspectives from various disciplines in the field. The aim is to apply theoretical perspectives and empirical evidence to address complex contemporary social problems and become better consumers and purveyors of knowledge and research. Topics include ethical and professional issues inherent in working in the social sciences and the role of advocacy in promoting social change.

Biology

BIOL 101 Concepts of Biology (3)

(Not open to students majoring in biotechnology or laboratory management.) An introduction to the structure and function of living organisms. The objective is to use knowledge about biological principles and scientific reasoning to make informed decisions about the natural world. Topics include the chemical foundations of life, cell biology, genetics, evolution, ecosystems, and the interdependence of living organisms. Discussion also covers the importance of the scientific method to biological inquiry and the impact of biological knowledge and technology on human societies. Students may receive credit for only one of the following courses: BIOL 101, BIOL 103, BIOL 105, or BSCI 105.

BIOL 102 Laboratory in Biology (1)

(Not open to students majoring in biotechnology or laboratory management. Fulfills the laboratory science requirement only with previous or concurrent credit for BIOL 101.) Prerequisite or corequisite: BIOL 101. A hands-on study of the structure and function of living organisms. The goal is to apply the scientific method and to use scientific and quantitative reasoning to make informed decisions about experimental results in the biological sciences. Laboratory exercises emphasize the scientific method and explore topics such as the chemical foundations of living organisms, cell structure and function, and the classification of organisms. Students may receive credit for only one of the following courses: BIOL 102, BIOL 103, BIOL 105, or BSCI 105.

BIOL 103 Introduction to Biology (4)

(Not open to students majoring in biotechnology or laboratory management or to students who have completed BIOL 101 or BIOL 102. Fulfills the laboratory science requirement.) An introduction to the structure and function of living organisms. The aim is to apply the scientific method and use scientific and quantitative reasoning to make informed decisions about experimental results in the biological sciences. Topics include the chemical foundations of life, cell biology, genetics, evolution, ecosystems,

and interdependence of living organisms. Discussion also covers the importance of the scientific method to biological inquiry and the impact of biological knowledge and technology on human societies. Laboratory activities emphasize the scientific method. Students may receive credit for only one of the following courses: BIOL 101, BIOL 102, BIOL 103, BIOL 105, or BSCI 105.

BIOL 160 Human Biology (3)

(Science background not required.) A general introduction to human structure, functions, genetics, evolution, and ecology. The aim is to use scientific reasoning to make informed decisions about topics related to human biology. The human organism is examined from the basic cellular level and genetics, through organ systems, to interaction with the outside world. Discussion also covers pertinent health topics. Students may receive credit for only one of the following courses: BIOL 160 or GNSC 160.

BIOL 161 Laboratory in Human Biology (1)

(Fulfills the laboratory science requirement only with previous or concurrent credit for BIOL 160.) Prerequisite or corequisite: BIOL 160. A laboratory study that uses the human organism as an example to illustrate the concepts underlying the organization and interrelationships of all living organisms.

BIOL 164 Introduction to Human Anatomy and Physiology (3)

Prerequisite: BIOL 101, BIOL 103, or BIOL 160. An introduction to the anatomy and physiology of the human organism. Topics include basic concepts of physics and chemistry that are necessary for understanding biological functions and the structure and function of cells, tissues, and the major organ systems in the body. Students may receive credit for only one of the following courses: BIOL 164 or GNSC 161.

BIOL 181 Life in the Oceans (3)

An introductory study of the major groups of plants and animals in various marine environments, as well as their interactions with each other and the nonliving components of the ocean. The objective is to use scientific reasoning to make informed decisions about topics related to marine biology. Discussion covers the impact of human activity on life in the ocean and the potential uses and misuses of the ocean. Students may receive credit for only one of the following courses: BIOL 181 or ZOO 181.

BIOL 220 Human Genetics (3)

An introduction to the role of genes in inheritance of traits and genetic diseases and disorders. The goal is to understand how genes affect physical appearance and behavior. Topics include Mendelian and non-Mendelian inheritance of human genetic diseases, human genetic variation, and mechanisms underlying human diseases. Students may receive credit for only one of the following courses: BIOL 220, BIOL 222, or BSCI 222.

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BIOL 301 Human Health and Disease (3)

(For students majoring in both science and nonscience disciplines.) A survey of the mechanisms of disease and their expression in major organ systems of the human body. The goal is to use scientific reasoning to make informed decisions about matters related to human biology and health. Topics include infections, cancer, heart disease, lung disease, diabetes, stroke, malnutrition, poisoning by environmental toxins, stress, inflammation, disorders of the immune system, and aging. Emphasis is on analysis of factors that cause disruption of healthy body functions, leading to disease, and on prevention of disease through control of risk factors and early detection. Students may receive credit for only one of the following courses: BIOL 301 or BIOL 398H.

BIOL 302 Bacteria, Viruses, and Health (3)

(For students majoring in both science and nonscience disciplines.) An introductory study of the basic structure, genetic and regulatory systems, and life cycles of bacteria and viruses and how they relate to health, infectious disease, and illness. The objective is to apply knowledge of cellular and molecular processes and communicate synthesized knowledge of microbial pathogenesis and disease prevention methods. Students may receive credit for only one of the following courses: BIOL 230, BIOL 302, BIOL 331, BIOL 398G, BSCI 223, MICB 200, or MICB 388A.

BIOL 304 The Biology of Cancer (3)

(For students majoring in both science and nonscience disciplines.) An overview of the biological basis of cancer. The goal is to apply knowledge of cancer biology to adopt appropriate lifestyle strategies and evaluate current treatments. The causes, development, and progression of cancer are considered at the level of cell structure and function. The roles of genes and proteins are also examined. Students may receive credit for only one of the following courses: BIOL 304 or GNSC 398C.

BIOL 307 The Biology of Aging (3)

(For students majoring in both science and nonscience disciplines.) An overview of the biological basis of aging. The goal is to apply knowledge of the aging process to influence personal lifestyle choices, public health policy, and economic decisions. Topics include typical changes that occur in cells, molecules, metabolism, and structure during the aging process. The development and progression of several diseases associated with aging (including cancer, neurodegenerative diseases such as Alzheimer's and Parkinson's diseases, osteoporosis, and loss of visual acuity and memory) are discussed with respect to the role of genes, proteins, and environmental influences. Students may receive credit for only one of the following courses: BIOL 307 or BIOL 398V.

BIOL 320 Forensic Biology (3)

Recommended: BIOL 101, BIOL 103, or BIOL 160. An introduction to the basic principles of biology as applied to the field of forensic science. The aim is to use scientific reasoning to draw conclusions and make decisions about forensic techniques, analyses, and results. Topics include the biological features and characteristics of evidentiary materials, as well as the basic principles of chemistry, cell biology, microbiology, and genetics that underlie forensic analyses.

BIOL 325 Inquiries in Biological Science (3)

Prerequisite: BIOL 101 or equivalent. An overview of biological principles and current trends in biological science. The goal is to apply knowledge of core biological principles, critically analyze current research, and use scientific reasoning to make evaluative decisions related to applications in the biological sciences. Topics include the scientific process, core biological concepts, careers in biology-related fields, and safety and health policies relevant to biological research.

BIOL 328 Bioethics (3)

Recommended: BIOL 101 and WRTG 112 or equivalent. An introduction to ethical decision making related to human life and health. The aim is to form defensible positions and carefully crafted arguments based on well-supported evidence. Discussion covers reproductive issues, biological research, and healthcare. Emphasis is on scientific and philosophical thinking.

BIOL 350 Molecular and Cellular Biology (3)

(For students majoring or minoring in a science.) Prerequisite: BIOL 325. A thorough examination of the basic structure and function of cells, with an emphasis on eukaryotic cell biology. The objective is to use knowledge of molecular biology to interpret results and draw conclusions about research findings and technological applications. Topics include cell-cycle growth and death; protein structure; DNA replication, repair, and recombination; gene expression; RNA processing; and molecular transport, traffic, and signaling. Discussion also covers the application of recombinant DNA, genetic engineering, and other current molecular biology technologies. Students may receive credit for only one of the following courses: BIOL 350 or BIOL 398S.

BIOL 357 Bioinformatics (3)

Prerequisite: BIOL 325 or another upper-level biology course. Recommended: IFSM 201 and MATH 105 (or a more advanced MATH or STAT course). An introduction to the use of computers in the analysis of nucleic acid and protein sequences and a study of the significance of these analyses. The goal is to develop an understanding of the software used in bioinformatics and learn how to address specific questions in biotechnology and research. Topics include genome analysis, evolutionary relationships, structure-function identification, protein pattern recognition, protein-protein interaction, and algorithms.

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BIOL 362 Neurobiology (3)

Prerequisite: BIOL 101, BIOL 103, or BIOL 160. An in-depth discussion of the biology and development of the nervous system. The goal is to apply knowledge of neurobiological principles to advanced studies or careers and be more informed healthcare consumers. Topics include neuronal structure and function; communication at the synapse; membrane receptors and intra- and intercellular signaling systems; gross organization of the brain and spinal cord; the processing of sensory information; the programming of motor responses; research techniques; ethics; brain development; plasticity; and higher functions such as learning, memory, cognition, and speech.

BIOL 398 Special Topics in Biology (3)

A study of topics in biology of special interest to students and faculty. May be repeated to a maximum of 6 credits when topics differ.

BIOL 422 Epidemiology and Communicable Diseases (3)

Prerequisite: BIOL 230, BIOL 301, BIOL 302, or BIOL 398G. Recommended: WRTG 393. An investigation of factors contributing to the emergence of new infectious diseases and the resurgence of diseases once thought to have been controlled. The goal is to synthesize and apply knowledge of research methods, integrate epidemiological information, and communicate knowledge to scientific and nonscientific communities. Topics include socioeconomic and environmental factors that contribute to the inability to prevent or control malaria, tuberculosis, and AIDS. Disease symptoms, patterns of spread, and possible control measures are examined for new infectious diseases (such as Lyme disease and those caused by *E. coli* O157, the Ebola virus, hantaviruses, and cryptosporidia). Discussion also covers resurgent diseases such as anthrax, bubonic plague, dengue fever, influenza, and cholera. Students may receive credit for only one of the following courses: BIOL 422 or MICB 388E.

BIOL 486A Workplace Learning in Biology (3)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

BIOL 486B Workplace Learning in Biology (6)

Prerequisites: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

BIOL 495 Current Trends and Applications in the Life Sciences (3)

(For students majoring or minoring in a science.) Prerequisite: BIOL 325. Recommended: A statistics course. An examination of current topics, trends, and applications in the life sciences. The aim is to be familiar with life science laboratory and industry environments, communicate scientific principles effectively, practice professional ethics, and demonstrate knowledge of safe laboratory operations. Topics include current research, ways to recognize future trends, strategies to solve current challenges, and creative solutions for developing products and services in the life sciences. Students may receive credit for only one of the following courses: BIOL 400 or BIOL 495.

Business and Management

BMGT 110 Introduction to Business and Management (3)

(For students with little or no business background. Recommended preparation for many other BMGT courses.) An introduction to the fundamental concepts of business management and leadership. The objective is to understand the interrelated dynamics of business, society, and the economy. Discussion covers business principles and practices in the contexts of everyday business events and human affairs and from a historical perspective.

BMGT 304 Managing E-Commerce in Organizations (3)

A hands-on, project-based introduction to the management of e-commerce organizations. The objective is to identify and demonstrate the unique skills needed to manage a sustainable e-commerce organization. Topics include e-commerce management principles, human resource management, information systems, knowledge management principles, e-marketing, virtual customer and supplier relations, and potential international legal issues. Assignments include project-based case studies that apply skills to modern workday problems.

BMGT 305 Knowledge Management (3)

A practical approach to knowledge management. The aim is to understand the value of knowledge management and the roles of knowledge workers and knowledge managers. Discussion covers how organizations capture, acquire, and share knowledge to maintain corporate memory and to develop collaborative energy. Topics include both formal and informal approaches to knowledge sharing and ways in which organizations use knowledge management techniques for competitive advantage. Students may receive credit for only one of the following courses: BMGT 305 or BMGT 388C.

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BMGT 317 Decision Making (3)

A practical examination of decision making. The goal is to use a proven framework to generate potential solutions for effective decision making. Discussion covers the cultural impact of decision making, including stakeholders' expectations. Topics also include root cause analysis, risks and uncertainty, critical success factors, key performance indicators, psychological traps, and the steps to assure effectiveness before and after decision implementation. Students may receive credit for only one of the following courses: BMGT 317 or TMGT 310.

BMGT 330 Entrepreneurship and New Venture Planning (3)

Recommended: BMGT 364. An overview of entrepreneurship and planning new business ventures for aspiring entrepreneurs and managers. The objective is to create and present a high-quality business plan for a new venture using marketing research and financial analytical techniques. Topics include profiles of entrepreneurs; benefits, risks, and challenges; financial management; access to capital; and franchising. Students may receive credit for only one of the following courses: BMGT 330, FINC 310, MGMT 330, or SBUS 200.

BMGT 335 Small Business Management (3)

Recommended: BMGT 317. A comprehensive review of the management principles underlying organizational development and growth and business life-cycle segments of emerging enterprises. The goal is to demonstrate an understanding of small business management in a global context, differentiate between micro- and macro-organizational structures, and identify the critical elements of business sustainability. Topics include entrepreneurship, financing/capitalization, innovation, and human resource and strategic planning. Core components of small business management are explored and evaluated through a multifaceted approach.

BMGT 339 Introduction to Federal Contracting (3)

An overview of the federal contracting process, including the requirements and techniques of federal contracting. The objective is to document needs in writing, develop evaluation criteria, and review and assess contractor performance. Activities include planning, evaluating award criteria, and assessing performance. Discussion also covers critical contract issues. Students may receive credit for only one of the following courses: BMGT 339, MGMT 220, or MGMT 339.

BMGT 364 Management and Organization Theory (3)

Recommended: BMGT 110. An examination of the four functions of management—planning, organizing, leading, and controlling—with emphasis on the application of management concepts and theories to achieve organizational goals. The aim is to develop strategies, goals, and objectives to enhance performance and

sustainability. Topics include ethics, social responsibility, globalization, and change and innovation. Students may receive credit for only one of the following courses: BMGT 364, TEMN 202, TEMN 300, TMGT 301, or TMGT 302.

BMGT 365 Organizational Leadership (3)

Prerequisite: BMGT 110 or BMGT 364. An exploration of leadership as a critical skill for the 21st century, when change occurs rapidly and consistently. The objective is to use leadership theory and assessment tools to evaluate one's own leadership skills. Focus is on the leadership skills needed to develop committed and productive individuals and high-performing organizations. Topics include vision, values, culture, ethics, and the interaction between the organization and the external environment. Students may receive credit for only one of the following courses: BMGT 365, MGMT 300, MGST 310, or TEMN 310.

BMGT 372 Supply Chain Management (3)

Prerequisite: BMGT 364. An examination of supply chain management systems, with a focus on maximizing the value generated by an organization. The goal is to explain the implications of supply chains for customer expectations and the competitive advantage of the organization. Discussion covers effective practices and tradeoffs among separate supply chain functions and the use of performance measures to monitor outcomes. Topics also include logistics, forecasting, negotiating, trust and collaboration, and supply chain status reporting.

BMGT 375 Purchasing Management (3)

Prerequisite: BMGT 364. A study of purchasing management and the roles of purchasing specialists in medium to large organizations under the guidance of the chief purchasing officer. The aim is to understand how organizations use purchasing for competitive advantage; how suppliers are evaluated, selected, and managed; how metrics and models are used to make purchasing more effective; how cross-functional collaboration is vital to achieving economic efficiencies; and how important ethics and integrity in purchasing are to good business practices. Topics include the duties of a buyer, the ways information technology supports purchasing, materials management, controlling costs, best practices, outsourcing and insourcing, and measuring purchasing effectiveness. Students may receive credit for only one of the following courses: BMGT 375, MGMT 375, or TEMN 360.

BMGT 380 Business Law I (3)

(Strongly recommended for students seeking careers as CPAs, lawyers, or managers.) A conceptual and functional analysis and application of legal principles and concepts relevant to the conduct and understanding of commercial business transactions in the domestic and global environments. The aim is to evaluate sources of law, legal process, procedures, and remedies and to

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analyze tort, criminal, and contractual rights, obligations, liabilities, and remedies in the business environment. Topics include the legal, ethical, and social environments of business; civil and criminal law; agency; types of business organizations; and contracts and sales agreements.

BMGT 381 Business Law II (3)

(Strongly recommended for students seeking careers as CPAs, lawyers, or managers.) Prerequisite: BMGT 380. Further conceptual and functional analysis and application of legal principles relevant to the conduct and understanding of commercial business transactions in the domestic and global environment. The aim is to evaluate sources of law, legal process, procedures, and remedies and to analyze tort, criminal, and contractual rights, obligations, liabilities, and remedies in the business environment. Topics include personal and real property, leases, antitrust, business insurance, accountants' liability, negotiable instruments, secured transactions, government regulation affecting consumer protection, environmental protection, debtor/creditor relationships, and bankruptcy and reorganization.

BMGT 392 Global Business (3)

Recommended: BMGT 110. An overview of key concepts and issues relevant to conducting business in the global environment. Emphasis is on applying fundamental knowledge of global business and analyzing and evaluating global business variables for informed decision making. The objective is to analyze property rights, obligations, liabilities, and remedies; evaluate regulations in the business environment; and assess implications of transactions and negotiable instruments in the business environment. Topics include the nature and scope of global business; cultural, political, legal, and economic environments; marketing; trade; and foreign investments. Students may receive credit for only one of the following courses: BMGT 392, MGMT 305, or TMGT 390.

BMGT 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.

BMGT 411 Process Improvement (3)

A hands-on, project-based introduction to process improvement. The objective is to assess the root cause of a problem, gain buy-in for the improvement, map the process, establish internal controls, and apply a variety of metrics to improve processes, test improvement solutions, and implement the process improvement. Emphasis is on process improvements that are cost-effective and add value to organizational missions. Topics include meeting customer expectations, flowcharting, selecting approaches to change management, acquiring resources, and sustaining improvements. Students may receive credit for only one of the following courses: BMGT 411 or TMGT 411.

BMGT 456 Managing Across Cultures and Borders (3)

Recommended: BMGT 110. An examination and analysis of international management across cultures and borders. The aim is to apply critical thinking and analytical skills in global management settings. Focus is on the roles of business managers in today's complex global environment. Topics include cross-cultural strategic planning, multinational organizational structures, global leadership, cross-cultural communication, environmental factors, decision making, and negotiations. Students may receive credit for only one of the following courses: BMGT 456 or BMGT 498R.

BMGT 464 Organizational Behavior (3)

Prerequisites: BMGT 364 and BMGT 365. Recommended: BMGT 110. An examination of research and theory on the forces underlying the way members of an organization behave and their effect on employee and organizational productivity and effectiveness. The aim is to participate, lead, and manage teams and maximize individual contributions to an organization. Topics include the impact that individual characteristics, group dynamics, and organizational structure, policies, and culture have on employee behaviors and organizational outcomes (i.e., productivity, absenteeism, turnover, deviant workplace behavior, satisfaction, and citizenship).

BMGT 465 Organizational Development and Transformation (3)

Prerequisites: BMGT 364 and BMGT 365. Recommended: STAT 200. An introduction to organizational development (OD)—a systematic process of data collection, diagnosis, action planning, intervention, and evaluation aimed at increasing the effectiveness of the organization and developing the potential of all individuals. The goal is to identify and diagnose organizational problems and opportunities and apply management principles to support organizational change. Students may receive credit for only one of the following courses: BMGT 465, MGMT 398K, MGMT 465, or TMGT 350.

BMGT 466 Global Public Management (3)

Recommended: BMGT 110. A comprehensive study of public management. The aim is to analyze, design, and evaluate solutions to public-sector problems, both domestic and global, based on an understanding of public-sector management concepts and the different types of organizations involved. Topics include development and implementation of public-sector projects and the finance, human resources, and marketing activities that support them. Discussion also covers public management in diverse regions of the world, as well as the purpose and management of intergovernmental organizations and nongovernmental organizations. Students may receive credit for only one of the following courses: BMGT 366, BMGT 466, or TMGT 305.

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BMGT 482 Advanced Federal Contracting (3)

Prerequisite: BMGT 339. Recommended: BMGT 110. An in-depth examination of the procurement life cycle. The objective is to assess the intricate relationships between the contracting activity and contractors involved in ongoing contract performance and see how these relationships can become mutually beneficial instead of adversarial. Topics include ethics, socioeconomics, key decision points, terminations, modifications, and related performance issues. Students may receive credit for only one of the following courses: BMGT 482 or TMGT 340.

BMGT 484 Managing Teams in Organizations (3)

Prerequisite: BMGT 364. A theoretical and practical investigation into the factors involved in building and managing effective work groups or teams in organizations. The aim is to lead and manage teams—establishing goals, roles, and processes; managing resources and relationships; and using effective interpersonal communication and team-building practices to enhance team members' individual and collective motivation, productivity, and performance. Topics include the conscious and unconscious dynamics of team development, conflict and decision making, commitment and trust, assessment and rewards, and other factors that foster team cohesion and performance. Students may receive credit for only one of the following courses: BMGT 484, BMGT 498H, or MGMT 498H.

BMGT 485 Leadership for the 21st Century (3)

(Intended as the final, capstone course for management studies majors, to be taken in the last 15 credits, but appropriate for anyone who aspires to a leadership position.) Prerequisites: BMGT 364, BMGT 365, and BMGT 464 (or BMGT 465). An examination of leadership in organizations, with a focus on issues pertinent to the 21st century. The goal is to develop the skills necessary to achieve individual and organizational excellence. Discussion covers the leadership qualities and behaviors that help organizations thrive: valuing employees, having a clear vision, acting ethically, relying on core values, and building positive relationships.

BMGT 486A Workplace Learning in Business and Management (3)

Prerequisites: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

BMGT 486B Workplace Learning in Business and Management (6)

Prerequisites: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

BMGT 487 Project Management I (3)

(The first course in the two-course series BMGT 487–BMGT 488.) Recommended: FINC 330. An introduction to project management principles, concepts, and software applications. The goal is to manage a project through all phases of the project life cycle. Project management is examined in terms of practical applications and practices. Appropriate organizational structures, such as collegial and matrix types, are described and assessed. Discussion also covers the practical considerations of designing a project management system. Students may receive credit for only one of the following courses: BMGT 487 or TMGT 430.

BMGT 488 Project Management II (3)

(The second course in the two-course series BMGT 487–BMGT 488.) Prerequisite: BMGT 487. An examination of project management processes and applications beyond introductory principles and concepts. The goal is to manage a project through all phases of the project life cycle. Emphasis is on the practical applications of project management principles and processes. Projects depict real-world situations, such as information systems implementations; service business/e-commerce projects; and consulting projects that occur in research, information systems, manufacturing, and engineering firms. Students may receive credit for only one of the following courses: BMGT 488 or TMGT 430.

BMGT 495 Strategic Management (3)

(Access to spreadsheet, word processing, and presentation software required. Intended as a final, capstone course to be taken in a student's last 15 credits.) Prerequisites: BMGT 364, BMGT 365, FINC 330 (or BMGT 340), and MRKT 310. A study of strategic management that focuses on integrating management, marketing, finance/accounting, production/operations, services, research and development, and information systems functions to achieve organizational success. The aim is to apply integrative analysis, practical application, and critical thinking to the conceptual foundation gained through previous study and personal experience. Emphasis is on developing an organizational vision and mission, developing and implementing strategic plans, and evaluating outcomes. Students may receive credit for only one of the following courses: BMGT 495, HMGT 430, MGMT 495, or TMGT 380.

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BMGT 496 Business Ethics (3)

A study of the relationship of business ethics and social responsibility in both domestic and global settings. The aim is to explore ethical and moral considerations of corporate conduct, social responsibilities, policies, and strategies. Emphasis is on the definition, scope, application, and analysis of ethical values as they relate to issues of public and organizational consequence and business decision making in the domestic and global business environments.

Career Planning

CAPL 398A Career Planning Management (1)

A survey of strategies for managing career change. Focus is on examining, evaluating, and assessing individual skill sets; networking; and researching career and economic markets. The objective is to formulate a career path and develop the resources needed to enter that path. Topics include résumé and cover letter development, interviewing techniques, negotiation strategies, and tools for ongoing career planning.

CAPL 495 General Studies Capstone (3)

(Intended as a final, capstone course to be taken in a student's last 15 credits.) The analysis and evaluation of knowledge and skills gained from previous study. A capstone project connects an area of study to a real-world scenario and includes the presentation of a portfolio linking one's academic experience with personal and professional goals.

Chemistry

CHEM 121 Chemistry in the Modern World (3)

(For students not majoring or minoring in a science.) An exploration of chemistry as it relates to human life and the environment. The goal is to use a working knowledge of chemical principles, scientific reasoning, and quantitative reasoning to make informed decisions about health and safety matters. Discussion examines natural processes and human factors in the modern world using the principles of chemistry and the scientific method. Students may receive credit for only one of the following courses: CHEM 102, CHEM 103, CHEM 104, CHEM 105, CHEM 107, CHEM 121, CHEM 297, or GNSC 140.

CHEM 297 Environmental Chemistry (3)

Prerequisite(s): MATH 115 (or MATH 107 and MATH 108). An examination of the chemistry of environmental systems. The aim is to identify and evaluate fundamental principles of chemistry in relation to environmental systems. Discussion covers the nature of atoms, types of bonding, functional groups, chemical reactivity, and

chemical interactions. Topics also include migration of chemicals through the environment, the role of basic chemistry in biogeochemical cycles, and human impact on biogeochemical cycles through the use of technology. Students may receive credit for only one of the following courses: CHEM 102, CHEM 103, CHEM 104, CHEM 105, CHEM 107, CHEM 121, CHEM 297, or GNSC 140.

Chinese

CHIN 111 Elementary Chinese I (3)

(Not open to native speakers of Chinese; assumes no prior knowledge of Chinese. Students with prior experience with the Chinese language should take a placement test to assess appropriate level.) An introduction to spoken and written Mandarin Chinese. The objective is to communicate in Chinese in some concrete real-life situations using culturally appropriate language and etiquette, to read and write pinyin, and to begin to recognize and type Chinese characters. Practice is provided in Chinese pronunciation, tones, and structures needed for everyday communication.

CHIN 112 Elementary Chinese II (3)

(Not open to native speakers of Chinese.) Prerequisite: CHIN 111 or appropriate score on a placement test. A continued introduction to spoken and written Mandarin Chinese. The goal is to communicate in Chinese in concrete real-life situations using culturally appropriate language and etiquette and to recognize and type some frequently used Chinese characters. Practice is provided in improving pronunciation and developing the oral and written skills used in everyday communication.

CHIN 114 Elementary Chinese III (3)

(Not open to native speakers of Chinese.) Prerequisite: CHIN 112 or appropriate score on a placement test. Further development of skills in elementary spoken and written Mandarin Chinese. The aim is to communicate in Chinese in a variety of real-life situations using culturally appropriate language, recognize and distinguish more commonly used Chinese characters, and read in context. Practice is provided in improving pronunciation and developing the oral and written skills used in everyday communication.

CHIN 115 Elementary Chinese IV (3)

(Not open to native speakers of Chinese.) Prerequisite: CHIN 114 or appropriate score on a placement test. Further development of skills in elementary spoken and written Mandarin Chinese. The aim is to interact effectively with native speakers of Chinese in a variety of real-life situations using culturally appropriate language and to recognize and distinguish more commonly used Chinese characters in context. Practice in fine-tuning pronunciation and applying language skills to a range of contexts is provided.

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Communication Studies

COMM 200 Military Communication and Writing (3)

(Fulfills the general education requirement in communications.) A study of business communication management in a military context. The objective is to develop appropriate and effective communication products for military audiences and within military environments through the application of accepted business communication practices. Topics include communication theories; research methods; organization of information; formats; writing and editing strategies; and techniques for guiding subordinate communication, conducting interviews, and managing meetings. Assignments may include making speech presentations; instructing a class; conducting interviews; managing meetings; and writing and editing reports, letters, emails, proposals, and personnel evaluations.

COMM 202 Media and Society (3)

(Fulfills the general education requirement in communications but is not a writing course.) Prerequisite: WRTG 112 or equivalent. An overview of the complex components and relationships involved in today's media. The goal is to understand the technical, political, economic, cultural, and organizational influences on mediated messages. Topics include visual rhetoric, legal and ethical issues, social media, the transactional model, advertising, security, and privacy concerns.

COMM 207 Understanding Visual Communication (3)

A study of the creation and interpretation of visual language. The aim is to understand how images are used to effectively communicate ideas in a variety of channels, including news, advertising, and public relations. Topics include aesthetics, principles of composition, color systems, content awareness, and historical and cultural perspectives. Emphasis is on critical thinking and analysis of images from both theoretical and practical perspectives.

COMM 300 Communication Theory (3)

(Fulfills the general education requirement in communications but is not a writing course.) Prerequisite: WRTG 112 or equivalent. An introduction to communication theory. The objective is to apply communication theory and evaluate communication situations. The basic theories of human communication, mass communication, and new media and technology are explored. Focus is on the relationships among communication theory, research, and practice. Topics include intra- and interpersonal communication, public communication, mass media, and contemporary issues associated with mediated communication.

COMM 302 Mass Communication and Media Studies (3)

(Fulfills the general education requirement in communications but is not a writing course.) Prerequisite: WRTG 112, WRTG 101, or WRTG 101S. A survey of mass communication designed to enhance media literacy. The goal is to interpret, evaluate, and produce media messages. Topics include media industries and the impact of the media, as well as regulation, policy, and ethical issues. Emphasis is on critical thinking and analysis of vital aspects of pervasive elements of popular culture, such as news, advertising, children's entertainment, and a free press. Students may receive credit for only one of the following courses: COMM 302 or COMM 379A.

COMM 390 Writing for Managers (3)

(Fulfills the general education requirement in communications.) Prerequisite: WRTG 112, WRTG 101, or WRTG 101S. A practicum in the kinds of communication skills that managers need for the workplace. The goal is to develop persuasive managerial communication for organizational decision making and action. Students may receive credit for only one of the following courses: COMM 390, HUMN 390, WRTG 390, or WRTG 490.

COMM 400 Mass Media Law (3)

(No previous study of law required. Fulfills the general education requirement in communications but is not a writing course.) Prerequisite: WRTG 112 or equivalent. Recommended: WRTG 391, WRTG 393, or WRTG 394. An examination of important legal issues that affect mass media and communications professionals. The objective is to analyze mass media law, its evolution, and its relationship with society, culture, and politics. Topics include copyright, intellectual property, fair use, defamation, privacy, freedom of information, freedom of speech, and freedom of the press, as well as issues raised by the growth of the internet. Discussion also covers ethics in mass media, digital technologies, and the creation of media content. Students may receive credit for only one of the following courses: COMM 400 or JOUR 400.

COMM 459 Special Topics in Communication (1–3)

An exploration of special topics in communication. The objective is to attain specialized knowledge and skills in a particular area of communication, journalism, speech, or professional writing. Focus is on demonstrating new knowledge through an extended applied project. May be repeated to a maximum of 6 credits when topics differ.

COMM 480 Research Methods in Communication Studies (3)

Prerequisites: COMM 300 and COMM 302. A review of qualitative and quantitative research methods in communication studies. The objective is to define and explain research methods, concepts,

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and tools; apply research design, data collection, analysis, and reporting skills; and critically evaluate research in terms of rigor, relevance, and explanatory value. Practice is provided in finding, consuming, and analyzing research studies. Discussion covers the steps of the research process: articulating a question, developing a methodology, conducting a study, and reporting on findings.

COMM 486A Workplace Learning in Communication Studies (3)

Prerequisites: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

COMM 486B Workplace Learning in Communication Studies (6)

Prerequisites: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

COMM 492 Grant and Proposal Writing (3)

(Fulfills the general education requirement in communications.) Prerequisite: WRTG 112 or equivalent. An advanced study of technical writing, focusing on composing competitive proposals in response to Requests for Proposal (RFPs) and other funding solicitations from the federal government and community and private sources. The aim is to apply skills needed in the proposal development process; assess an RFP to determine evaluation and competitive criteria; and synthesize the required elements into a successful proposal. Discussion covers stages of the proposal-development process, including researching the funding agency for its mission, target populations, and problems of interest; assessing the RFP to determine evaluation criteria; and assembling the required elements of a successful proposal. Assignments include writing a grant request and working in teams to prepare a competitive business proposal. Students may receive credit for only one of the following courses: COMM 492, ENGL 489C, or WRTG 494.

COMM 495 Senior Seminar in Communication Studies (3)

(Intended as a final, capstone course to be taken in a student's last 15 credits.) Prerequisites: COMM 300, COMM 302, and at least 9 additional credits of upper-level COMM, SPCH and/or JOUR courses. Recommended: COMM 390. A project-based capstone study of communication. The aim is to reflect on the knowledge and skills gained through previous coursework and experiences in the discipline.

Computer and Information Science

CMIS 102 Introduction to Problem Solving and Algorithm Design (3)

A study of techniques for finding solutions to problems through structured programming and step-wise refinement. The objective is to design programs using pseudocode and implement them in an appropriate programming language. Hands-on practice in debugging, testing, and documenting is provided. Topics include principles of programming, the logic of constructing a computer program, and the practical aspects of integrating program modules into a cohesive application. Algorithms are used to demonstrate programming as an approach to problem solving. Students may receive credit for only one of the following courses: CMIS 102, CMIS 102A, or CMSC 101.

CMIS 111 Social Networking and Cybersecurity Best Practices (3)

A hands-on study of current social networking applications and approaches to protect against cyber attacks and enhance personal cybersecurity. The goal is to collaborate and interact through personal and professional social networking while developing and using computer security best practices. Discussion covers issues associated with the impact of social computing on individuals and society. Projects include creating and maintaining accounts on selected social networking sites.

CMIS 141 Introductory Programming (3)

(Not open to students who have taken CMIS 340. The first in a sequence of courses in Java.) Prerequisite: CMIS 102 or prior programming experience. Recommended: MATH 107. A study of structured and object-oriented programming using the Java language. The goal is to design, implement, test, debug, and document Java programs, using appropriate development tools. Projects require the use of algorithms, simple data structures, and object-oriented concepts. Students may receive credit for only one of the following courses: CMIS 141, CMIS 141A, or CMSC 130.

CMIS 242 Intermediate Programming (3)

Prerequisite: CMIS 141. Further study of the Java programming language. The objective is to design, implement, test, debug, and document Java programs, using appropriate development tools. Topics include object-oriented design, event-driven programming, exceptions, recursion, arrays, and data structures.

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CMIS 310 Computer Systems and Architecture (3)

(Not open to students who have completed CMSC 311.) Prerequisite: CMIS 115, CMIS 125, or CMIS 141. A study of the fundamental concepts of computer architecture and factors that influence the performance of a system. The aim is to apply practical skills to computer systems architecture. Topics include data representation, assembly language, central processing unit architecture, memory architecture, and input/output (I/O) architecture. Students may receive credit for only one of the following courses: CMIS 270, CMIS 310, CMSC 311, or IFSM 310.

CMIS 320 Relational Database Concepts and Applications (3)

Prerequisite: CMIS 102 or CMIS 141. A study of the functions, underlying concepts, and applications of enterprise relational database management systems (RDBMS) in a business environment. The aim is to appropriately use databases to meet business requirements. Discussion covers entity/relationship diagrams, relational theory, normalization, integrity constraints, the Structured Query Language (SQL), and physical and logical design. Business case studies and projects include hands-on work using an industry-standard RDBMS. Students may receive credit for only one of the following courses: CMIS 320 or IFSM 410.

CMIS 330 Software Engineering Principles and Techniques (3)

Prerequisite: CMIS 115, CMIS 125, or CMIS 141. A study of software engineering from initial concept through design, development, testing, and maintenance of the product. Discussion covers software development life-cycle models. The goal is to analyze, customize, and document multiple processes to solve information technology problems. Topics include configuration management, quality, validation and verification, security, human factors, and organizational structures. Students may receive credit for only one of the following courses: CMIS 330 or CMIS 388A.

CMIS 420 Advanced Relational Database Concepts and Applications (3)

Prerequisite: CMIS 320, IFSM 410, or IFSM 411. A comprehensive study of the features and techniques of relational database management appropriate to the advanced end user, database designer, or database administrator. The goal is to complete hands-on work using an industry-standard enterprise relational database management system. Topics include basic database administration functions, advanced SQL and complex data types, stored procedures, user-defined functions, triggers, and data warehousing. Students may receive credit for only one of the following courses: CMIS 420, IFSM 420, or IFSM 498I.

CMIS 440 Advanced Programming in Java (3)

Prerequisites: CMIS 242 and CMIS 320. An exploration of advanced Java programming, using the Java Enterprise edition. The objective is to analyze, design, develop, test, deploy, and document small- to medium-scale web applications. Hands-on projects in Java server pages, servlets, and Java database connectivity are included. Students may receive credit for only one of the following courses: CMIS 440 or CMIS 498A.

CMIS 486A Workplace Learning in Computer and Information Science (3)

Prerequisites: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

CMIS 486B Workplace Learning in Computer and Information Science (6)

Prerequisites: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

CMIS 498 Special Topics in Computer and Information Science (3)

Prerequisites: Vary according to topic. A seminar on topics in computer and information science. May be repeated to a maximum of 6 credits when topics differ.

Computer Information Technology

CMIT 202 Fundamentals of Computer Troubleshooting (3)

(Designed to help prepare for the CompTIA A+ exams.) Prerequisite: IFSM 201. A thorough review of computer hardware and software, with emphasis on the application of current and appropriate computing safety and environmental practices. The goal is to evaluate, install, configure, maintain, and troubleshoot computer hardware components and operating systems.

CMIT 265 Fundamentals of Networking (3)

(Designed to help prepare for the CompTIA Network+ certification exam.) Prerequisite: IFSM 201. An introduction to networking technologies for local area networks, wide area networks, and wireless networks. The aim is to recognize the type of network design appropriate for a given scenario. Topics include the OSI

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(open system interconnection) model, security, and networking protocols. Students may receive credit for only one of the following courses: CMIT 265 or CMIT 265M.

CMIT 320 Network Security (3)

(Designed to help prepare for the CompTIA Security+ exam.) Prerequisite: CMIT 265, CSIA 302, or CompTIA Network+ certification. A study of the fundamental concepts of computer security and its implementation. The aim is to assess and mitigate risk, evaluate and select appropriate technologies, and apply proper security safeguards.

CMIT 321 Ethical Hacking (3)

(Formerly CMIT 398E. Designed to help prepare for the EC-Council Certified Ethical Hacker certifications.) Prerequisite: CMIT 320. Development of the structured knowledge base needed to discover vulnerabilities and recommend solutions for tightening network security and protecting data from potential attackers. Focus is on penetration-testing tools and techniques to protect computer networks. Students may receive credit for only one of the following courses: CMIT 321 or CMIT 398E.

CMIT 326 Cloud Technologies (3)

(Designed to help prepare for the CompTIA Cloud+ and AWS Certified Cloud Practitioner certification exams.) Prerequisite: IFSM 201. A hands-on study of basic cloud technologies. The aim is to apply the techniques and tools used in cloud environments, especially the AWS (Amazon Web Services) cloud. Topics include the global infrastructure of the cloud, deployment and operation in various cloud environments, high availability, scalability, elasticity, security, and troubleshooting. AWS, Microsoft Azure, and Google Cloud are compared.

CMIT 336 Fundamentals of Microsoft Azure (3)

(Designed to help prepare for Exam AZ-900: Microsoft Azure Fundamentals.) Prerequisite: CMIT 326. A hands-on study of Microsoft Azure services. The aim is to demonstrate mastery of cloud concepts; the core services used in Azure; pricing and support models used for Azure; and fundamentals of cloud security, privacy, compliance, and trust for Microsoft Azure. Topics include high availability, scalability, agility, fault tolerance, and disaster recovery in the Microsoft Azure environment.

CMIT 340 Malware Analysis (3)

(Designed to help prepare for the GIAC Reverse Engineering Malware [GREM] certification exam.) Prerequisites: CCJS 321 (or CCJS 421), CMIS 102, and CMIT 320. A project-driven analysis of malicious software, i.e., software designed to disrupt systems or gain sensitive information. The objective is to implement various techniques to analyze malware and other malicious software used in forensic investigations.

CMIT 350 Interconnecting Cisco Devices (3)

(Designed to help prepare for the Cisco Certified Network Associate (CCNA) examination.) Prerequisite: CMIT 265. A hands-on introduction to Cisco internetworking devices. The goal is to configure and manage Cisco switches within multiprotocol internetworks. Topics include VoIP (voice over internet protocol), wireless network protocols, and routing protocols. Students may receive credit for only one of the following courses: CAPP 498E, CMIT 350, or CMIT 499D.

CMIT 391 Linux System Administration (3)

(Designed to help prepare for the Linux Professional Institute Certification 1 [LPIC-1] and Linux+ exams.) Prerequisite: CMIT 265. A study of the Linux operating system. The goal is to configure and manage processes, user interfaces, device files, print facilities, file systems, task automation, the boot-up/shutdown sequence, disk storage, network connectivity, system security, users, and groups. Students may receive credit for only one of the following courses: CMIS 390, CMIT 391, or CMIS 398U.

CMIT 421 Threat Management and Vulnerability Assessment (3)

(Designed to help prepare for CompTIA Cybersecurity Analyst (CySA+) certification.) Prerequisite: CMIT 320. A study of the analysis of data in threat and vulnerability management. The goal is to properly utilize various cybersecurity tools and technologies. Discussion covers the analysis of threats and the impact on incident response, as well as the tools and equipment used in a forensic investigation. Various industry and government frameworks and regulatory compliance are highlighted.

CMIT 424 Digital Forensics Analysis and Application (3)

(Designed to help prepare for the Certified Computer Examiner [CCE] certification exam.) Prerequisites: Either CMIT 202 (or CompTIA A+ certification) and CCJS 421 or CMIT 202, CMIT 320 (or CompTIA Security+ certification), and CCJS 321. A project-driven study of the digital forensic evaluation process. The objective is to build forensic workstations, collect evidence, extract artifacts, identify unknown files, and reassemble evidence from network packet captures.

CMIT 425 Advanced Information Systems Security (3)

(Formerly CMIT 499S. Designed to help prepare for the (ISC)² Certified Information System Security Professional [CISSP] certification exam.) Prerequisite: CMIT 320 or CompTIA Network+ and Security+ certifications. Recommended: BMGT 110, IFSM 300, or two years of business and management experience. A comprehensive study of information systems security to enhance organizational security. The goal is to manage risks by identifying and mitigating them. Students may receive credit for only one of the following courses: CMIT 425 or CMIT 499S.

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CMIT 426 Mastering the AWS Cloud (3)

(Designed to help prepare for the AWS Certified Solutions Architect-Associate exam.) Prerequisite: CMIT 326. A hands-on study of Amazon Web Services (AWS). The goal is to understand the computing, networking, storage, and database services in AWS; apply best practices in building secure and reliable applications in the AWS cloud environment; and identify the appropriate AWS service to meet an organization's technical requirements.

CMIT 436 Security in the Cloud (3)

(Designed to help prepare for the (ISC)² Certified Cloud Security Professional exam.) Prerequisite: CMIT 326. A hands-on study of cybersecurity and means for securing critical assets in cloud environments. The goal is to apply the principles of confidentiality, integrity, and availability (CIA) of digital resources in cloud environments.

CMIT 440 Mobile Forensics (3)

(Designed to help prepare for the IACIS Certified Mobile Device Examiner [ICMDE] certification exam.) Prerequisite: CMIT 424. A project-driven study of mobile devices from a forensic perspective. The aim is to implement various techniques to collect and analyze information from mobile devices used in forensic investigations.

CMIT 460 Network Forensics (3)

(Designed to help prepare for the Computer Security Incident Handler [CSIH] certification.) Prerequisites: CMIT 320, CMIT 350, CMIT 369, and CMIT 424. A project-driven study of networks from a forensics perspective. The goal is to implement various techniques that are used in forensic investigations in response to network intrusions to collect and analyze information from computer networks.

CMIT 486A Workplace Learning in Computer Information Technology (3)

Prerequisites: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

CMIT 486B Workplace Learning in Computer Information Technology (6)

Prerequisites: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

CMIT 495 Current Trends and Projects in Computer Networks and Cybersecurity (3)

(Intended as a final capstone course to be taken in a student's last 9 credits.) Prerequisites: CMIT 320, CMIT 350, CMIT 369 (or CMIT 368), and an additional 15 credits in CMIT coursework. A comprehensive project-driven study of network design and security, with an emphasis on the integration of knowledge, practical applications, and critical thinking. The objective is to implement a secure and scalable network to meet organizational needs. Topics include advanced concepts in network and security design.

CMIT 499 Special Topics in Computer Networks and Security (1–5)

An inquiry into special topics in computer networks and security that reflect the changing field. May be repeated when topics differ.

Computer Science

CMSC 150 Introduction to Discrete Structures (3)

Prerequisite or corequisite: MATH 140. A survey of fundamental mathematical concepts relevant to computer science. The objective is to address problems in computer science. Proof techniques presented are those used for modeling and solving problems in computer science. Discussion covers functions, relations, infinite sets, and propositional logic. Topics also include graphs and trees, as well as selected applications. Students may receive credit for only one of the following courses: CMSC 150 or CMSC 250.

CMSC 307 Artificial Intelligence Applications (3)

(No programming or math background required.) An interactive, hands-on study of current artificial intelligence (AI) applications spanning multiple disciplines and domains, including business, science, communications, and computing. The goal is to use datasets with AI and machine learning applications from leading cloud vendors, including Amazon and Microsoft. Projects and laboratory exercises demonstrate how AI can be used to solve problems across a wide variety of disciplines.

CMSC 325 Game Design and Development (3)

Prerequisite: CMSC 230 or CMIS 242. A project-driven study of the theory and practice of game design and development. The aim is to build realistic graphical 3-D worlds, animate characters, and add special effects to games. Discussion covers critical mathematical concepts and real-time game physics. Projects include collaborative development of interactive games.

CMSC 330 Advanced Programming Languages (3)

Prerequisite: CMSC 230 or CMSC 350. A comparative study of programming languages. The aim is to write safe and secure

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computer programs. Topics include the syntax and semantics of programming languages and run-time support required for various programming languages. Programming projects using selected languages are required.

CMSC 335 Object-Oriented and Concurrent Programming (3)

Prerequisite: CMSC 230 or CMSC 350. A study of object-oriented and concurrent programming using features of Java. The goal is to design, implement, test, debug, and document complex robust programs in an object-oriented language. Concepts of object-oriented programming (such as composition, classification, and polymorphism) are explored. Topics include the principles of concurrent programming (such as task synchronization, race conditions, deadlock, threads, and event-driven graphic user interface programs). Programming projects are implemented in Java. Students may receive credit for only one of the following courses: CMSC 300 or CMSC 335.

CMSC 350 Data Structures and Analysis (3)

Prerequisite: CMIS 242. A study of user-defined data structures and object-oriented design in computer science. The aim is to develop secure Java programs. Topics include linked lists, stacks, queues, arrays, maps, vectors, and trees. Algorithms that perform sorting, searching, and recursion are discussed and analyzed.

CMSC 405 Computer Graphics (3)

Prerequisite: CMSC 325 or CMSC 350. A hands-on, project-based introduction to computer graphics. The goal is to develop projects that render graphic images and animate three-dimensional objects. Topics include programming in OpenGL and transforming, viewing, and modeling 2-D and 3-D objects.

CMSC 412 Operating Systems (3)

Prerequisite: CMIS 310 or CMSC 311. A study of the fundamental principles underlying modern operating systems. The objective is to design and implement a small-scale operating system and design a virtual memory management system. Discussion covers the essential components of a typical operating system and the interactions among them. Topics also include methods of managing processes and resources in computer systems. A programming project that implements part of an operating system is required.

CMSC 427 Artificial Intelligence Foundations (3)

Prerequisite: SDEV 300. A study of the theoretical foundations and practical applications of artificial intelligence. The objective is to develop algorithms and systems to demonstrate intelligent behavior. Topics include intelligent agents, searching algorithms, knowledge representation, probability, logic, and learning.

CMSC 430 Compiler Theory and Design (3)

Prerequisites: CMSC 330 and programming experience in C or C++. An examination of the formal translation of programming languages, syntax, and semantics. The goal is to write programs that are constructed using program generators. Topics include evaluation of finite-state grammars and recognizers; context-free parsing techniques, such as recursive descent, precedence, LL(K), LR(K), and SLR(K); and improvement and generation of machine-independent code and syntax-directed translation schema. Programming projects that implement parts of a compiler are required.

CMSC 437 Machine Learning (3)

Prerequisite: CMSC 427. A hands-on study and application of machine and deep learning algorithms to solve challenging problems. The goal is to build models, using modern cloud-based tools, to efficiently solve real-world problems. Topics include exploratory data analysis, modeling, and machine learning implementation and evaluation.

CMSC 447 Artificial Intelligence Solutions (3)

(Designed to help prepare for the AWS Certified Machine Learning or Microsoft Designing and Implementing an Azure AI Solution exam.) Prerequisite: CMSC 437. A hands-on, project-based study of artificial intelligence and machine learning solutions to complex problems. Topics include natural language processing, computer vision, and speech recognition.

CMSC 451 Design and Analysis of Computer Algorithms (3)

Prerequisites: CMSC 150 and CMSC 350 (or CMSC 230). A presentation of fundamental techniques for designing and analyzing computer algorithms. The aim is to apply Big-O estimates of algorithms and proof-of-correctness techniques and to design algorithms. Basic methods include divide-and-conquer techniques, search and traversal techniques, dynamic programming, greedy methods, and induction. Programming projects are included.

CMSC 465 Image and Signal Processing (3)

Prerequisites: MATH 141 and CMSC 350. A project-driven study of image and signal processing. The goal is to apply spectral analysis techniques to analyze time series data for the purpose of recognizing and classifying signals and to apply image segmentation, representation, and description techniques to recognize and classify objects. Topics include discrete Fourier transforms, fast Fourier transforms, sampling and filtering, and image transformations and enhancements.

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CMSC 486A Workplace Learning in Computer Science (3)

Prerequisites: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

CMSC 486B Workplace Learning in Computer Science (6)

Prerequisites: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

CMSC 495 Current Trends and Projects in Computer Science (3)

(Intended as a final, capstone course to be taken in a student's last 9 credits.) Prerequisite(s): CMSC 330 and CMSC 335, CMIS 320 and CMIS 330, or SDEV 425. An overview of computer technologies, with an emphasis on integration of concepts, practical application, and critical thinking. The goal is to research, plan, conduct, and complete collaborative computer-related projects in compliance with schedule deadlines. Analysis covers innovative and emerging issues in computer science. Assignments include working in teams throughout the analysis, design, development, implementation, testing, and documentation phases of the projects, including periodic peer reviews.

CMSC 498 Special Topics in Computer Science (1-3)

Prerequisites: Vary according to topic. A seminar on topics in computer science. May be repeated to a maximum of 6 credits when topics differ.

Computer Studies

CMST 100B Word Processing (1)

(Not open to students who have completed CMST 303.) An introduction to word processing. The goal is to use word processing applications effectively to produce professional documents for business and personal communication. Topics include creating, formatting, and editing word-processing documents. Hands-on practice with industry-standard word-processing software is provided. Students may receive credit for only one of the following courses: CAPP 100B, CAPP 103, CMST 100B, or CMST 103.

CMST 100D Presentation Graphics (1)

(Not open to students who have completed CMST 303.) An introduction to the principles of presentation graphics. The goal is to use presentation graphics applications effectively to produce electronic presentations for professional and personal communication. Topics include planning and creating effective presentations. Hands-on

practice with industry-standard presentation graphics software is provided. Students may receive credit for only one of the following courses: CAPP 100D, CAPP 103, CMST 100D, or CMST 103.

CMST 100F Database Applications (1)

(Not open to students who have completed CMST 303.) An introduction to database systems, their terminology, and the principles of database management. The goal is to use database management applications effectively to create professional databases. Topics include how best to organize, manage, and access stored data; how to protect databases; and how to extract useful information. Hands-on practice with industry-standard database software is provided. Students may receive credit for only one of the following courses: CAPP 100F, CAPP 103, CMST 100F, or CMST 103.

CMST 100G Spreadsheet Applications (1)

(Not open to students who have completed CMST 303.) An introduction to the use of electronic spreadsheets to analyze numerical data, including basic terminology, formats, and other applications. The goal is to use spreadsheet applications to produce professional electronic spreadsheets effectively for business and personal use. Hands-on practice with industry-standard spreadsheet software is provided. Students may receive credit for only one of the following courses: CAPP 100G, CMST 100G, CAPP 103, or CMST 103.

CMST 290 Introduction to Interactive Design (3)

An introduction to the principles, practices, techniques, and theories that govern the use of scripting and programming languages in the design and development of interactive digital media. The objective is to effectively use proven scripting and programming theory to support digital media design for print, web, and mobile devices. Projects involve modifying existing scripting languages and HTML code as well as conducting a usability review.

CMST 295 Fundamentals of Digital Media (3)

An overview of the principles, practices, techniques, and theories that govern the design and development of digital media in web technology, digital design, and motion graphics. The goal is to effectively follow proven design theory in creating digital media for print, web, and mobile devices. Topics include usability, accessibility, ethics, and emerging technologies. Career paths in the digital media industry are analyzed.

CMST 301 Digital Media and Society (3)

A survey of technological advancements in the field of digital media and their impact. The objective is to explain how digital media has transformed the communication of ideas in society and to make responsible choices in the creation and consumption of digital media based on awareness of global, social, ethical, and legal contexts. Topics include social media, the visual display of information, ethics and privacy, participatory media, and the impact of digital media on culture.

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CMST 303 Advanced Application Software (3)

Prerequisite: Extensive experience with office application software, including word processing, spreadsheet, presentation, and database programs. A hands-on, project-based survey of advanced features of office application software. The aim is to use advanced application features to produce documents for professional and personal communication. Topics include information systems, application integration, computer hardware and software, storage, and networking. Students may receive credit for only one of the following courses: CAPP 303 or CMST 303.

CMST 310 Fundamentals of Electronic Publishing (3)

Recommended: CMST 295. A hands-on, project-based introduction to the tools, concepts, processes, and methods of electronic (desktop) publishing. The aim is to use Adobe InDesign (or another professional electronic publishing software program) to create electronic publications for various media formats following fundamental design principles. Topics include the history and evolution of publishing, working with color, incorporating graphics, principles and elements of design, publication workflow, emerging technologies, careers in the field, ethical and legal considerations, and collaborative design. Students may receive credit for only one of the following courses: CAPP 310, CAPP 398B, or CMST 310.

CMST 311 Advanced Electronic Publishing (3)

Prerequisite: CMST 310. A hands-on, project-based study of the advanced concepts, tools, processes, and methods of electronic (desktop) publishing. The goal is to use Adobe InDesign to create engaging electronic publications following fundamental design principles for print, online, and mobile devices. Topics include motion and interactivity, PDF (portable document format) publishing, emerging technologies, design issues related to mobile devices, ethical and legal considerations, collaborative work, and print and web-ready Adobe Flash files. Students may receive credit for only one of the following courses: CAPP 311 or CMST 311.

CMST 320 Illustration Graphics (3)

Recommended: CMST 295. A hands-on, project-based introduction to illustration graphics using Adobe Illustrator. The goal is to apply fundamental concepts of vector image composition to create professional digital media for delivery across multiple platforms, including print, web, and video, following ethical principles and legal guidelines. Topics include terminology, tools, theory, and processes from concept to completion. Discussion covers Bezier curves, shading, depth, paths, drawing tools, vector vs. raster images, and color theory.

CMST 325 Image Editing (3)

An introduction to digital image editing using Adobe Photoshop. The aim is to identify established digital image editing tools, techniques, and best practices; create new images; and edit existing

images. Topics include terminology, tools, theory, and processes from concept to completion. Discussion covers fundamental concepts and practical techniques, as well as ethical and legal issues. Emphasis is on applying these concepts and techniques to produce high-quality digital works for multiple platforms, including print, web, and other electronic media.

CMST 341 Principles of Multimedia I (3)

Recommended: CMST 290 and CMST 295. A hands-on, project-based introduction to multimedia development. The aim is to create interactive products that integrate images, sound, video, and animation following sound media design principles for optimal display in multiple media formats using Adobe Flash. Topics include storyboarding, web design, animation, motion tweening, project management, and ethical design.

CMST 351 Motion Graphics I (3)

Prerequisites: CMST 320 and CMST 325. A hands-on introduction to the basic concepts, techniques, and principles of digital video and motion graphics effects using Adobe After Effects. The objective is to describe digital video compositing techniques; create digital composites that combine video, text, digital images, and audio; and apply visual special effects to create professional results for use on multiple platforms, such as film, video, multimedia, and the web. Topics include techniques such as basic storyboarding, key framing, transformations, and rendering, as well as effects (including levels, curves, color correction, blur, glow, fractal noise, keying, masking, and cartoon effects).

CMST 385 Principles of Web Design and Technology I (3)

Prerequisite: CMST 290. Recommended: CMST 295. A study of web design, tools, and technology principles. The goal is to plan and produce a professional website. Topics include internet protocols; usability; accessibility; and social, ethical, and legal issues related to website production. Focus is on hypertext markup language version 5 (HTML5) and cascading style sheets (CSS). Students may receive credit for only one of the following courses: CAPP 385 or CMST 385.

CMST 386 Principles of Web Design and Technology II (3)

Prerequisite: CMST 385. Continuation of the study of web design, tools, and technology principles. The objective is to create a website promotion strategy, with search engine optimization, and produce a professional website that incorporates multimedia and scripting. Topics include website marketing, web analytics, performance, privacy, and security issues related to website production. Focus is on extensible hypertext markup language (XHTML), cascading style sheets (CSS), and JavaScript. Students may receive credit for only one of the following courses: CAPP 386 or CMST 386.

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CMST 388 Fundamentals of JavaScript (3)

Prerequisite: CMST 386. Recommended: CMST 290. A hands-on, project-based study of JavaScript using a structured programming approach to build dynamic, interactive web pages. The goal is to use client-side JavaScript to create interactive, cross-browser-compatible web pages that minimize security and privacy vulnerabilities. Topics include form validation, web development tools, documentation, dynamic HTML, event handling, cross-browser compatibility, cookies, and security issues. Programming projects are included. Students may receive credit for only one of the following courses: CMST 388 or CMST 398J.

CMST 425 Advanced Image Editing (3)

Prerequisite: CMST 325. Continued hands-on, project-based study of digital image editing using Adobe Photoshop. The objective is to identify and apply advanced design concepts, adjustments, and batch-processing techniques to creating new images and editing existing ones. Topics include more advanced terminology, tools, considerations, and processes from concept to completion. Emphasis is on advanced concepts and practical techniques to create professional images for print, web, and other electronic media. Discussion also covers ethical and legal issues.

CMST 450 Web Development Using XML (3)

Prerequisite: CMST 386. A study of the concepts and techniques essential to web development. The aim is to create, validate, and transform data into multiple formats to create digital and web-based media. Topics include document creation, validation, transformation, and security principles. Focus is on extensible markup language (XML). Students may receive credit for only one of the following courses: CAPP 498D or CMST 450.

CMST 486A Workplace Learning in Computer Studies (3)

Prerequisites: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

CMST 486B Workplace Learning in Computer Studies (6)

Prerequisites: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

CMST 488 Advanced JavaScript (3)

Prerequisite: CMST 388. A hands-on, project-based study of web application development using advanced JavaScript technologies. The aim is to create cross-browser-compatible web applications that adhere to industry standards and minimize security risks.

Topics include JavaScript libraries, user interfaces, accessibility, usability, and security. Web development projects using advanced JavaScript are included.

CMST 495 Current Trends and Projects in Digital Media and Web Technology (3)

(Intended as a final, capstone course to be taken at the end of the student's program.) Prerequisites: CMST 290, CMST 295, and 15 credits in the major. An overview of current trends, technologies, theories, and practices in the digital media and web technology fields. The aim is to integrate concepts, practical application, and critical thinking skills acquired through previous study and apply them to professional and postgraduate objectives. Analysis covers innovative and emerging issues in digital media, web technology, motion graphics, or general computing. Projects use techniques and approaches previously studied; they may focus on digital media design and production for print or online access, web technologies, or motion graphics.

Criminology/Criminal Justice

CCJS 100 Introduction to Criminal Justice (3)

(Fulfills the general education requirement in behavioral and social sciences.) An introduction to the administration of criminal justice in a democratic society, emphasizing the history and theories of law enforcement. The objective is to conduct research, analyze criminological theory to inform the development of criminal justice policies, and make appropriate criminal justice decisions. Discussion covers the principles of organization and administration in law enforcement, 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: CCJS 100 or CJUS 100.

CCJS 101 Introduction to Investigative Forensics (3)

A survey of the practical applications of forensic science. The aim is to learn to apply the scientific method to forensic evidence and distinguish between reality and popular misperceptions of the roles and importance of forensic science and its practitioners. Discussion covers the "CSI effect," the scientific method as it applies to forensic evidence, ethical practices, and legal aspects of the field. Topics include the definition of forensic science and how it has evolved, disciplines within the field, ethical codes, and case law.

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CCJS 105 Introduction to Criminology (3)

(Fulfills the general education requirement in behavioral and social sciences.) An overview of the major elements of the criminological enterprise. The objective is to classify and analyze different crime trends and patterns, analyze criminological theories, and conduct research. Topics include the nature of criminology, criminological methods, crime causation, and characteristics of types of crimes and offenders. The police, courts, and corrections and the effects of the criminal justice system in society are also examined.

CCJS 230 Criminal Law in Action (3)

Recommended: CCJS 100 or CCJS 105. A study of the history, nature, sources, and types of criminal law. The objective is to identify the elements of crime, recognize parties to crime, and explain the historical development of criminal law and punishment in the United States. Topics include behavioral and legal aspects of criminal acts and the classification and analysis of select criminal offenses. 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 100, CCJS 101, or CCJS 105. Recommended: CCJS 230. A study of the general principles and theories of criminal procedure and evidence. The goal is to interpret statutes and case law, identify relevant issues, and evaluate the integrity and admissibility of evidence. Topics include due process, arrest, search and seizure, and the evaluation of evidence and proof. Recent developments in the field are discussed.

CCJS 301 Criminalistics I: The Comparative Disciplines (4)

Prerequisite: CCJS 100, CCJS 101, or CCJS 105. Recommended: CCJS 234. An intensive study of the analysis of physical evidence in the crime laboratory, with practical laboratory exercises. The objective is to apply skills expected of an entry-level professional in the investigative forensics field that are necessary for the practical analysis of evidence in a criminal investigation. Topics include the comparative disciplines, including impression evidence analysis, trace evidence analysis, and firearms analysis.

CCJS 302 Criminalistics II: The Scientific Disciplines (4)

Prerequisite: CCJS 301. Further intensive study of the analysis of physical evidence in the crime laboratory, with practical laboratory exercises. The goal is to apply skills expected of an entry-level criminalist to the practical analysis of evidence in a criminal investigation. Topics include the applications of the scientific disciplines, including bloodstain pattern analysis, questioned document analysis, controlled dangerous substances analysis, and DNA analysis.

CCJS 311 Intelligence-Led Policing (3)

Prerequisite: CCJS 100 or CCJS 105. An examination of intelligence-related processes as they apply to domestic law enforcement. The aim is to identify, collect, and assess data and process that information into intelligence that can support strategic and tactical planning. Intelligence reports are reviewed and assessed. Discussion covers the legal and ethical licenses and constraints that provide a framework for intelligence development.

CCJS 321 Digital Forensics in the Criminal Justice System (3)

(For students not majoring in criminal justice; not open to students who have completed CCJS 421; does not satisfy prerequisites for other criminal justice courses.) An overview of the criminal justice system and the application of digital forensic evidence in criminal justice cases. The objective is to apply constitutional and case law to the search and seizure of digital evidence, determine the most effective and appropriate forensic response strategies to digital evidence, and provide effective courtroom testimony in a case involving digital evidence. Topics include crime scene procedures and the collection of digital evidence, procedures performed in a digital forensics lab, and the preparation of courtroom testimony by the digital forensic investigator.

CCJS 340 Law Enforcement Administration (3)

Prerequisite: CCJS 100 or CCJS 105. Recommended: CCJS 230. An introduction to organization and management in law enforcement. The objective is to communicate effectively and apply research skills and management and administrative principles to a law enforcement agency. Topics include 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 341 Criminal Investigation (3)

Prerequisite: CCJS 100 or CCJS 105. Recommended: CCJS 230. An introduction to the concepts and methodologies used by criminal investigators to prevent and suppress crime and aid in the apprehension of criminal suspects. The aim is to communicate effectively, demonstrate principles of effective investigative management, and apply scientific techniques and technology to criminal investigations. Topics include crime scene search and recording; collection and preservation of physical evidence; use of scientific aids, modus operandi, and sources of information; interview and interrogation; follow-up; and case preparation. Emphasis is on leadership and management to enhance investigative efforts.

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CCJS 342 Crime Scene Investigation (3)

Prerequisite: CCJS 100, CCJS 101, or CCJS 105. Recommended: CCJS 234. An examination of the investigation of crime scenes. The objective is to apply skills expected of an entry-level professional in the investigative forensics field. Topics include the crime scene, crime scene documentation, evidence, and post-crime scene activities.

CCJS 345 Introduction to Security Management (3)

(Formerly CCJS 445.) Prerequisite: CCJS 100 or CCJS 105. Recommended: CCJS 230. A study of the history, concepts, principles, and methods of organizing and administering security management and loss prevention activities in industry, business, and government. The objective is to manage security duties, evaluate and apply risk management principles, and evaluate administrative and operational issues. Discussion covers both private and governmental risk assessment and management and the protection of assets, personnel, and facilities. Students may receive credit for only one of the following courses: CCJS 345, CCJS 445, or CCJS 498G.

CCJS 350 Juvenile Delinquency (3)

(Fulfills the general education requirement in behavioral and social sciences.) Prerequisite: CCJS 100 or CCJS 105. Recommended: CCJS 230. An examination of juvenile delinquency in relation to the general problem of crime. The aim is to apply theories and identify statutory parameters related to juvenile delinquency, analyze prevention measures, and assess the effectiveness of treatment measures. Topics include 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 or CCJS 105. Recommended: CCJS 230. An analysis of the role of criminal justice in controlling the use and abuse of drugs. The objective is to apply effective enforcement strategies, demonstrate case management skills, and analyze the effect of drug policy. Students may receive credit for only one of the following courses: CCJS 352 or CJUS 352.

CCJS 360 Victimology (3)

(Fulfills the general education requirement in behavioral and social sciences.) Prerequisite: CCJS 100 or CCJS 105. Recommended: CCJS 230. An overview of the history and theory of victimology in which patterns of victimization are analyzed, with emphasis on types of victims and of crimes. The aim is to identify and apply appropriate preventative measures and responses to victimization. Discussion covers the interaction between victims of crime and the system of criminal justice 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 380 Ethical Behavior in Criminal Justice (3)

Prerequisite: CCJS 100 or CCJS 105. Recommended: CCJS 230. A survey of the standards for ethical behavior that guide criminal justice professionals in different roles and responsibilities. The aim is to make ethical decisions based on informed personal and accepted professional standards. Rules, laws, and codes of conduct are explored as a foundation for discussing individual ethical responsibilities.

CCJS 390 Cybercrime and Security (3)

Prerequisite: CCJS 100, CCJS 101, CCJS 105, CSIA 301, or CSIA 310. Recommended: CCJS 234. An examination of crimes involving the use of computers. Topics include federal and state laws and investigative and preventive methods used to secure computers. Case studies emphasize security. Students may receive credit for only one of the following courses: CCJS 390, CCJS 496, or CCJS 498C.

CCJS 416 Analytical Strategies for Law Enforcement (3)

Prerequisite: CCJS 100 or CCJS 105. An examination of the authenticity, accuracy, viability, and reliability of intelligence reports as they relate to the application of intelligence to public safety problem solving. The goal is to evaluate intelligence reports to formulate plans, policies, and procedures that ensure effective and efficient agency operations. Focus is on developing critical thinking and problem-solving skills through role-playing in a simulated environment, working with near-genuine intelligence reports and public safety issues. Practice is provided in analyzing the strategies and activities detailed in intelligence reports, identifying and implementing responsive actions, and determining appropriate redistribution of such reports.

CCJS 420 Medical and Legal Investigations of Death (3)

Prerequisite: CCJS 100, CCJS 101, or CCJS 105. Recommended: CCJS 234. An intensive look at medical and legal investigations into causes of death. The objective is to perform investigative functions at a death scene, determine and apply forensic testing, and analyze and effectively communicate investigative information. Topics include the difference between the medical (or pathological) and legal (or criminal) components of investigations into causes of death, medical and investigative terminology, and the impact of ethics on prosecutions and convictions. Case studies illustrate practical applications of various forms of forensic styles and parameters.

CCJS 421 Principles of Digital Analysis (3)

(Computer access with administrator privileges required.) Prerequisite: CCJS 100, CCJS 101, or CCJS 105. A study of the technical and legal issues facing computer crime investigators and digital forensic examiners. The objective is to determine the most effective and appropriate forensic response strategies to support

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computer crime investigative efforts involving various digital technologies; apply forensic best practices to both the collection and handling and the analysis of digital evidence; and appropriately communicate complex technical and investigative information in an accurate, ethical, and comprehensive manner. Focus is on acquiring the skills to identify and collect potential digital evidence at a crime scene; analyze that evidence using forensically sound methods; and report forensic findings, both verbally and in writing.

CCJS 440 Fingerprint Analysis (3)

Prerequisite: CCJS 301. A comprehensive study of friction ridge analysis in fingerprints. Emphasis is on the practical analysis of evidence in a criminal investigation. The objective is to apply skills expected of an entry-level fingerprint professional, including assessing surfaces for viable latent fingerprints; evaluating how to process and collect latent fingerprints; analyzing, comparing, evaluating, and verifying fingerprint evidence; and conveying findings. Topics include processing and comparison methodologies, historical and biological foundations of impressions, and legal aspects.

CCJS 441 Firearms and Toolmarks Analysis (3)

Prerequisite: CCJS 301. A comprehensive study of toolmark evidence, including toolmarks imparted by firearms. Discussion covers the practical analysis of evidence in a criminal investigation. The aim is to assess toolmarks; examine, compare, evaluate, and verify firearm and toolmark evidence; and convey findings. Topics include comparison methodologies, historical and mechanical foundations of toolmarks, and legal aspects. Focus is on developing the foundational knowledge and applied skills expected of an entry-level professional in the firearms and toolmarks field.

CCJS 461 Psychology of Criminal Behavior (3)

Prerequisite: CCJS 100, CCJS 101, or CCJS 105. An overview of delinquent and criminal behavior from a developmental, cognitive-behavioral perspective. The aim is to apply theoretical perspectives (behavioral, emotional, and cognitive) to analyze real or hypothetical criminal scenarios; to identify the various factors that encourage or discourage criminal behavior; and to explain the use of risk assessment tools at various stages of the criminal justice process. Factors that influence the development of adults and juveniles on the road to crime are examined to assess culpability for criminal behavior. Students may receive credit for only one of the following courses: CCJS 461 or CRIM 455.

CCJS 486A Workplace Learning in Criminal Justice (3)

Prerequisites: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

CCJS 486B Workplace Learning in Criminal Justice (6)

Prerequisites: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

CCJS 495 Issues in Criminal Justice (3)

(Intended as a final, capstone course for criminal justice degree majors; to be taken in a student's last 15 credits.) Prerequisites: 15 upper-level credits in CCJS. An integrative study of the various components of the American criminal justice system. The goal is to apply principles of interagency cooperation, critical thinking skills, and systems approaches to solve practical problems in a criminal justice environment. Topics include problem solving, case study analysis, strategic planning, teamwork, and professional writing.

CCJS 497 Correctional Administration (3)

Prerequisite: CCJS 100 or CCJS 105. Recommended: CCJS 230. An examination of prison administration, including theories of management and institutional structure and purpose. The objective is to apply organizational concepts, leadership, and effective administrative approaches to the management of correctional structures and offender populations. Emphasis is on organization and management in the field of corrections. Discussion covers organizational structure, communication, self-assessment, strategic planning, decision making, and human resources. Students may receive credit for only one of the following courses: CCJS 497 or CCJS 498D.

Cybersecurity and Information Assurance

CSIA 300 Cybersecurity for Leaders and Managers (3)

(Designed in part to help prepare for the EC-Council Secure Computer User [CSCU] certification.) Prerequisite: Any CMIS, CMSC, CMIT, CMST, CSIA, IFSM, or SDEV course. Recommended: IFSM 201. A survey of the cybersecurity principles, practices, and strategies required by leaders and managers to become strategic partners in the establishment, management, and governance of an enterprise's cybersecurity program. The aim is to develop both an understanding of how cybersecurity supports key business goals and objectives and the "soft skills" necessary for success in a leadership or managerial role. Topics include the fundamentals of cybersecurity practices and principles; enterprise IT governance processes and security controls; data security; the information life cycle; intellectual property protections; privacy laws and regulations; security education, training, and awareness; and the need for cooperation and collaboration between business units and the organization's cybersecurity program.

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CSIA 310 Cybersecurity Processes and Technologies (3)

(Includes content designed to help in preparing for EC-Council Certified Incident Handler [ECIH] certification.) Prerequisites: IFSM 201 and WRTG 112 or equivalent. A study of the processes and technologies used to implement and manage enterprise IT security operations. The goal is to apply and integrate cybersecurity concepts and best practices with the principles of IT operations and management and to prepare for a government- and industry-recognized intermediate level cybersecurity certification (Certified Incident Handler). Topics include the essential management and operational activities (acquisition, deployment, and operations) required to secure IT technologies and business operations against a wide variety of threats and attacks.

CSIA 350 Cybersecurity in Business and Industry (3)

Prerequisites: CSIA 310 and WRTG 112 or equivalent. A study of the application and integration of cybersecurity principles, frameworks, standards, and best practices to the management, governance, and policy development processes for businesses. Discussion covers the organization, management, and governance of cybersecurity for enterprise IT in business settings; risk and risk management practices; and development and implementation of industry-wide cybersecurity initiatives and programs.

CSIA 360 Cybersecurity in Government Organizations (3)

Prerequisite: CSIA 350. A study of cybersecurity management and governance in the context of the missions, functions, and operations of federal, state, and municipal government agencies, departments, and programs. Discussion covers the policy life cycle and the mechanisms used by governments to formulate and implement laws, policies, regulations, and treaties to protect and defend government operations and society as a whole against cyber attacks and crimes, both foreign and domestic.

CSIA 413 Cybersecurity Policy, Plans, and Programs (3)

(Includes content designed to help in preparing for IAPP Certified Information Privacy Professional/U.S. certification.) Prerequisite: CSIA 360. A study of the application of cybersecurity principles, frameworks, standards, and best practices to organization-level strategies, policies, programs, plans, procedures, and processes. The aim is to prepare for an internationally recognized information privacy certification exam. Projects include writing security policies and plans, developing metrics and measures for information security programs, planning audits of compliance practices and processes, and developing organization-level security policies for enterprise IT governance. Discussion covers principles and best practices for protecting privacy and ensuring compliance with laws and regulations.

CSIA 459 Evaluating Emerging Technologies (3)

Prerequisites: CMIT 320 and CSIA 350. A survey of emerging and leading technologies in the cybersecurity field. The aim is to research, evaluate, and recommend emerging technologies and determine secure implementation strategies for best-fit business solutions. Topics include evolutionary technology development and adoption in organizations.

CSIA 485 Practical Applications in Cybersecurity Management and Policy (3)

(Intended as a final, capstone course to be taken in a student's last 6 credits; includes content designed to help in preparing for the EC-Council Certified Chief Information Security Officer [CCISO] and Information Security Manager [EISM] certifications.) Prerequisites: CMIT 320 and CSIA 413. A study of cybersecurity management and policy that integrates knowledge gained from previous coursework and experience. Focus is on developing security strategies, plans, policies, and processes for the protection of an organization's critical information and assets. The goal is to enhance professional skills in cybersecurity management and leadership. Topics also include the ethical integration of cybersecurity best practices and risk management throughout an enterprise.

CSIA 486A Workplace Learning in Cybersecurity (3)

Prerequisites: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

CSIA 486B Workplace Learning in Cybersecurity (6)

Prerequisites: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

Economics

ECON 103 Economics in the Information Age (3)

A survey of basic concepts and principles in micro- and macro-economics and how the economy has been affected by technology. The aim is to define and explain the key terms and concepts in economics and determine how technology has affected consumers, producers, and markets, as well as economic growth and policy. Topics include how innovation affects labor markets, the value of information, and the role of technological change in the economy.

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ECON 201 Principles of Macroeconomics (3)

An introductory study of the macroeconomy. The objective is to apply select macroeconomic theories to real-world situations. Discussion covers economic growth, technological innovation, unemployment, inflation, and the roles of monetary policy and fiscal policy in determining macroeconomic performance. Students may receive credit for only one of the following courses: ECON 201 or ECON 205.

ECON 203 Principles of Microeconomics (3)

An analysis of the economic principles underlying the behavior of individual consumers and business firms. The goal is to apply select microeconomic theories to real-world situations. Emphasis is on market theory. Topics include the implications of government intervention, technological innovation, the advantages and disadvantages of different market structures, and income distribution and poverty.

ECON 305 Intermediate Macroeconomic Theory and Policy (3)

Prerequisite: ECON 201. An analysis of the forces that determine a nation's income, employment, and price levels. The aim is to analyze macroeconomic indicators and trends and evaluate their impact. Topics include consumption, investment, inflation, and governmental fiscal and monetary policy. Students may receive credit for only one of the following courses: ECON 305, ECON 403, or ECON 405.

ECON 306 Intermediate Microeconomic Theory (3)

Prerequisite: ECON 203. An analysis of the principles underlying the behavior of individual consumers and business firms. The objective is to analyze microeconomic indicators and trends and evaluate their impact. Discussion covers theories of welfare, taxation, marketing systems, and income distribution. Students may receive credit for only one of the following courses: ECON 306 or ECON 403.

ECON 430 Money and Banking (3)

Prerequisites: ECON 201 and ECON 203. An examination of the structure of financial institutions and their role in providing money and near money. The goal is to evaluate how the banking and business environment has changed, describe the functions and measurement of money, discuss and evaluate the money supply creation process, and analyze the impact of the Federal Reserve's policies on both the U.S. economy and the economies of other nations. Topics include the composition of the Federal Reserve, the money supply creation process, the tools of monetary policy, the term structure of interest rates, the demand for and supply of money, and interest rate theories. Students may receive credit for only one of the following courses: ECON 430 or ECON 431.

ECON 440 International Economics (3)

Prerequisites: ECON 201 and ECON 203. An examination of international trade and finance theory and their application to contemporary economic issues. The aim is to use economic frameworks to explain international trade and financial flows and analyze information and data on economic policy and institutions. Topics include the costs and benefits of trade, exchange rate markets, global financial imbalances, regional trading blocks, and the role of international economic institutions. Students may receive credit for only one of the following courses: BEHS 440, ECON 440, or ECON 441.

Emergency Management

EMGT 302 Concepts of Emergency Management (3)

Prerequisite: WRTG 112 or equivalent. An introduction to emergency management at the global, national, regional, state, and local levels. The objective is to identify and analyze forces that formulate policy; apply the principles of policy and law to real-world situations; and analyze emerging political, legal, and policy issues to improve organizational preparedness. Topics include preparedness, mitigation, response, and recovery. The history of emergency management is reviewed, and its future in government and industry is discussed.

EMGT 304 Emergency Response Preparedness and Planning (3)

Prerequisite: EMGT 302. A study of the planning process, format, and response procedures for disasters and emergency events. The goal is to evaluate risk vulnerabilities and capabilities, design an emergency plan, and evaluate and critically assess an emergency plan. Topics include risk assessment, modeling, hazard analysis, vulnerability assessment, and response capability assessment. Discussion also covers the evaluation of plans and the use of exercises to improve and implement plans.

EMGT 308 Exercise and Evaluation Programs (3)

Prerequisite: EMGT 304. An examination of the role of disaster exercises in emergency management and business crisis management programs. The objective is to develop exercises in all four phases of emergency management, analyze emergency management capabilities, and use exercises to enhance strategic planning. Focus is on designing, conducting, and evaluating disaster exercises. Topics include the current federal focus on both response and intelligence exercises. Best practices are used to understand the application of "lessons learned," and after-action reports are employed to support continuous improvement.

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EMGT 312 Social Dimensions of Disaster (3)

Prerequisite: EMGT 304. An examination of the response of the public and individuals to disaster-related issues, such as disaster warnings, evacuations, relocations, civil unrest, loss of family and property, and recovery activities. The aim is to evaluate social factors that contribute to increased risk of disaster, design plans and processes that consider social factors, and design strategies and plans to enable communication with diverse social groups. Emphasis is on preparing the community through effective programs and public information. Discussion also covers the impact of disasters on response organizations and personnel.

EMGT 314 Terrorism Issues in Emergency Management (3)

Prerequisite: EMGT 304. A study of the role and responsibilities of the emergency manager in preparing for, responding to, mitigating, and recovering from situations related to terrorism. The objective is to devise and prepare plans, follow appropriate guidelines, and make use of interagency dynamics in planning for and responding to terrorism. Discussion covers the role of first-responder groups and other stakeholders and links the protection of critical infrastructure to national, state, and local guidelines.

EMGT 486A Workplace Learning in Emergency Management (3)

Prerequisites: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

EMGT 486B Workplace Learning in Emergency Management (6)

Prerequisites: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

English

ENGL 102 Composition and Literature (3)

(Fulfills the general education requirements in communications or arts and humanities.) Prerequisite: WRTG 112 or equivalent. Further practice in writing using readings in literature. Focus is on academic writing forms, especially critical analysis of literature, through a variety of modes, such as comparison and contrast, classification, and causal analysis. Students may receive credit for only one of the following courses: ENGL 102 or ENGL 292.

ENGL 103 Introduction to Mythology (3)

(Formerly HUMN 103.) A foundation in ancient mythology, focusing on Greek and Roman myths. Discussion may also cover Norse, Irish, Chinese, Arabic, and Hindu myths, among others. Emphasis is on examining various classical myths as expressed through plays, poems, and stories. The objective is to demonstrate an understanding of the differences between myths, legends, and other similar genres and show how classical world mythology still influences contemporary society. Students may receive credit for only one of the following courses: ENGL 103 or HUMN 103.

ENGL 240 Introduction to Fiction, Poetry, and Drama (3)

Prerequisite: WRTG 112 or equivalent. An introduction to fiction, poetry, and drama, with an emphasis on developing critical reading and writing skills. The objective is to identify and define elements of literature and literary genres, analyze literary texts using principles of close reading, and demonstrate skill in academic writing. Students may receive credit for only one of the following courses: ENGL 240 or ENGL 340.

ENGL 250 Introduction to Women's Literature (3)

Prerequisite: WRTG 112. Recommended: ENGL 102. An overview of multiple forms of writings by and about women from various periods and cultures. The aim is to read critically, understand diverse perspectives, and write effectively about women's literature.

ENGL 281 Standard English Grammar (3)

(Fulfills the general education requirement in communications but is not a writing course.) Prerequisite: WRTG 112 or equivalent. An overview of standard edited English, a standard central to academic and professional communications. The aim is to write clear, effective prose consistent with the writer's goals. Topics include applying advanced grammatical and linguistic descriptions and prescriptions and attending to the needs of diverse audiences while making writing and editing decisions. Tasks focus on parts of speech, sentence patterns, and sentence transformations. Students may receive credit for only one of the following courses: ENGL 281, ENGL 281X, or WRTG 288.

ENGL 294 Introduction to Creative Writing: Poetry, Creative Nonfiction, and Fiction (3)

Prerequisite: WRTG 112, WRTG 101, or WRTG 101S. An introductory survey and practical study of key aspects of literary writing in poetry, creative nonfiction, and fiction. The objective is to write original poetry, creative nonfiction, and fiction and to critique, revise, and edit that writing. Emphasis is on reading and thinking critically and analytically from a writer's perspective as a means to better understand the art and craft of creative writing. Discussion may cover publishing. Peer review of manuscripts may be included.

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ENGL 303 Critical Approaches to Literature (3)

(Designed as a foundation for other upper-level literature courses.) Prerequisite: WRTG 112 or equivalent. A study of the techniques of literary criticism, emphasizing close reading, critical thinking, and critical writing. The goal is to apply a variety of theoretical approaches to literature, analyze texts, and create professional written communications.

ENGL 310 Renaissance Literature (3)

Prerequisite: WRTG 112 or equivalent. A study of major British authors and literary works from the English Renaissance period. The goal is to gain historical perspective and discern contemporary relevance by exploring social and cultural contexts.

ENGL 311 The Long 18th-Century British Literature (3)

Prerequisite: WRTG 112 or equivalent. A study of major British authors and literary works from the period known as the long 18th century, roughly from the Restoration through the Age of Sensibility (1660–1830s). The goal is to gain historical perspective and discern contemporary relevance by exploring social and cultural contexts.

ENGL 312 19th-Century British Literature (3)

Prerequisite: WRTG 112 or equivalent. A study of major British authors and literary works from the historical eras known as the Romantic Age and the Victorian Age. The goal is to gain historical perspective and discern contemporary relevance by exploring social and cultural contexts.

ENGL 363 African American Authors from the Colonial Era to 1900 (3)

Prerequisite: WRTG 112 or equivalent. An examination of African American authors before 1900, including Phillis Wheatley, Frances Harper, Maria W. Stewart, David Walker, Frederick Douglass, William Wells Brown, Charles Chesnutt, and Paul Laurence Dunbar. The goal is to research historical issues; integrate findings into discussion; and articulate, develop, and advance a persuasive argument in written form.

ENGL 364 African American Authors from 1900 to the Present (3)

Prerequisite: WRTG 112 or equivalent. An examination of early 20th-century to early 21st-century African American authors, including James Weldon Johnson, Zora Neale Hurston, Richard Wright, James Baldwin, Ann Petry, Helene Johnson, Dorothy West, and Langston Hughes. The goal is to research historical issues; integrate findings into discussion; and articulate, develop, and advance a persuasive argument in written form. Students may receive credit for only one of the following courses: ENGL 364 or HUMN 364.

ENGL 381 Special Topics in Creative Writing (3)

Prerequisite: WRTG 112 or equivalent. Recommended: ENGL 294 or other creative writing course. A study of special creative writing topics. The goal is to develop creative writing skills within the scope of the special topic. Focus may be on a specific format (such as the novella, novel, or screenplay) or genre (such as mystery, horror, or teen fiction; travel writing; or epic poetry). May be repeated to a maximum of 6 credits when topics differ.

ENGL 384 Advanced Grammar and Style (3)

(Fulfills the general education requirement in communications but is not a writing course.) Prerequisite: WRTG 112 or equivalent. An examination of the basic units of grammatical descriptions, the nature of grammatical categories and structure, the methods and reasons for creating and using those structures, and the application of grammatical concepts to editorial and written style. The focus is on creating dynamic texts that convey complex subject matter to diverse audiences. Students may receive credit for only one of the following courses: ENGL 384 or WRTG 388.

ENGL 386 History of the English Language (3)

Prerequisite: WRTG 112 or equivalent. An examination of the development and usage of the English language. The objective is to explore various texts and research tools to examine the linguistic heritage and continuing evolution of English. Discussion traces the history of English from its origins and examines contemporary issues and controversies.

ENGL 389 Special Topics in English Literature (1–3)

An in-depth introduction to literary works written by a specific author or authors, representative of a literary movement or produced in a specific time or place. Assignments include advanced reading and research. Students may receive credit for a given topic in either ENGL 289 or ENGL 389 only once.

ENGL 406 Shakespeare Studies (3)

Prerequisite: WRTG 112 or equivalent. An intensive study of Shakespeare's work and its continuing relevance with reference to historically specific social and cultural contexts. The objective is to evaluate and synthesize source materials, apply critical theory, and demonstrate understanding of dramatic text. Histories, comedies, tragedies, romances, and sonnets may be examined. Students may receive credit for only one of the following courses: ENGL 406 or HUMN 440.

ENGL 418 Major British Writers Before 1800 (3)

Prerequisite: WRTG 112 or equivalent. A comprehensive and intensive study of one or two British writers from the period before 1800. The aim is to apply critical reading and thinking skills to analyze and interpret major British works before 1800 from various perspectives (social, historical, political, intellectual, and

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biographical). Authors studied may include Chaucer, Spenser, Marlowe, Jonson, Milton, Defoe, Richardson, Fielding, Pope, Swift, or Johnson. May be repeated to a maximum of 6 credits when topics differ.

ENGL 430 American Literature: Discovery to 1914 (3)

Prerequisite: WRTG 112 or equivalent. A comprehensive study of literature in America from European discovery until 1914. The aim is to examine literary periods, movements, and styles; interpret literature as a reflection of national and world events; recognize the differences among types of American literary works; and apply critical methodology. Topics include settlement and exploitation, revolution and government, American romanticism, slavery, women's rights, the Civil War and Reconstruction, and naturalism and realism.

ENGL 433 Modern American Literature: 1914–1945 (3)

Prerequisite: WRTG 112 or equivalent. A study of the uniqueness of modern American fiction, poetry, nonfiction, and drama. The goal is to interpret and analyze literature by applying critical theory. Focus is on the major social and historical changes that occurred between World War I and World War II and their effect on literature. Major authors may include Ernest Hemingway, William Faulkner, F. Scott Fitzgerald, Langston Hughes, and Hilda Doolittle (H. D.).

ENGL 439 Major American Writers (1–3)

Prerequisite: WRTG 112 or equivalent. A study of works by selected American authors from the colonial period to the present. The goal is to understand the place these authors and their works hold in the canon of American literature. Emphasis is on the impact of historical and social events, as well as biographical influences, on the literature. May be repeated to a maximum of 6 credits when topics differ.

ENGL 441 Postmodern American Literature: 1945 to 1999 (3)

Prerequisite: WRTG 112 or equivalent. A comprehensive study of literature in America from 1945 till the end of the 20th century. The objective is to interpret American literature as a reflection of national and world events, recognize the differences among types of American literary works, and apply critical methodology. Topics include the American Dream; war; fear and paranoia; rebellion and counterculture; civil rights, feminist, and gay movements; post-modernism; and multiculturalism.

ENGL 495 Advanced Seminar in English Language, Literature, and Writing (3)

(Intended as a final, capstone course to be taken in a student's last 15 credits.) Prerequisites: ENGL 240, ENGL 303, and at least 9 additional credits of upper-level ENGL courses. A synthesis and application of knowledge and skills developed by previous study

in the discipline. The goal is to refine skills and explore ways that they may be applied after graduation. Focus is on reviewing and revising previously written papers and/or projects to create a comprehensive portfolio. Assignments include the creation of the portfolio and writing original papers on one's professional post-graduate objectives and the current status of the discipline.

Environmental Management

ENMT 301 Environment and Ecosystems Principles (3)

An overview of the scientific principles governing ecosystems, particularly as they relate to the environmental consequences of resource development and industrial processes. The objective is to identify and apply scientific reasoning and knowledge of ecological principles to make informed decisions about environmental management issues and other issues that affect the ecosystem. Topics include Earth's ecosphere, atmosphere, hydrosphere, and lithosphere. Discussion also covers the current state of the environment, the historical development of environmental management issues and approaches, and concepts of risk assessment and management.

ENMT 303 Environmental Regulations and Policy (3)

An analysis of the development and implementation of the principles of constitutional and administrative law that are fundamental to both environmental management and health and safety management. The goal is to use information literacy skills to locate applicable policies, laws, and regulations and to apply knowledge of process and regulatory communication systems for effective environmental management. Emphasis is on federal legislation and the use of the *Federal Register* and *Code of Federal Regulations*. Discussion covers the relationship between regulations and public policy at local, state, and federal levels. Students may receive credit for only one of the following courses: ENMT 303 or ENMT 493.

ENMT 307 Introduction to Geographic Information Systems (GIS) (3)

An introduction to the basic concepts of geographic information systems (GIS). The aim is to apply critical-thinking and problem-solving skills to address current environmental challenges using GIS software and to develop skills in framing problems; selecting data; creating and building databases; editing, analyzing, and presenting data in a spatial context; and interpreting results.

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ENMT 310 Hazard Management in Emergency Response Operations (3)

An overview of emergency planning and the management of disaster response operations. The objective is to work safely in a hazardous environment and to prepare hazardous substances for transportation, processing, and disposal. Regulations, laws, and practices related to human-made and natural hazards and emergency preparedness are examined. Topics include the relationships between industrial processes and hazardous substances and elements of hazardous substances emergency planning, such as direction and control of emergency preparedness, response, and remediation. Review also covers preparation of emergency plans, methodology of disaster response, and performance of emergency operations. Practical exercises demonstrate how to prepare emergency plans for handling emergencies.

ENMT 315 Environmental Audits and Permits (3)

A study of the principles of environmental impact assessment and an in-depth look at laws, regulations, and methods of performing due diligence audits. The goal is to conduct environmental health and safety audits that reduce the potential for harmful or hazardous environmental or health incidents. Emphasis is on regulations and various audits and permits, such as property transfer audits, waste contractor audits, waste minimization/pollution prevention evaluations, Title V air permits, and National Pollutant Discharge Elimination System (NPDES) permits. Discussion also covers management systems and their influence on environmental health and safety audits. Audit systems covered include ISO 14000 and CERES principles.

ENMT 321 Environmental Health (3)

Prerequisites: CHEM 297, ENMT 301, and BIOL 301 (or a health-related biology course). Recommended: STAT 200. A study of the effects of biological, chemical, and physical hazards on human health. The aim is to anticipate, recognize, evaluate, and control environmental hazards. Topics include the impact of contamination and pollution of air, soil, and water on human health, as well as the potential impact of physical hazards on human well-being.

ENMT 322 Occupational Health and Safety (3)

Prerequisite: ENMT 301. A study of the principles of health and safety management in the workplace. The objective is to evaluate occupational hazards and formulate strategies to control occupational health and safety hazards and minimize injury. Topics include anticipation, recognition, evaluation, and control of occupational hazards. The strategies used by industrial hygienists and safety professionals to prevent or minimize the exposure to occupational hazards are explored. Discussion also covers the role of regulatory processes in occupational health and safety management.

ENMT 340 Environmental Technology (3)

Prerequisites: ENMT 301 and CHEM 297 (or an environmental chemistry course). Recommended: STAT 200. An introduction to technology for multimedia (i.e., air, water, land) environmental management, control, and remediation. The objective is to recognize and apply appropriate technological solutions to prevent, treat, detect, and remediate air, water, and land pollution. Discussion covers existing, modified, new, and emerging technologies. Case studies of real-world environmental challenges demonstrate the evaluation and selection of the appropriate technology for specific uses. Factors in making technology application decisions—such as technical integrity, cost effectiveness, and environmental soundness—are explained.

ENMT 360 Introduction to Urban Watersheds (3)

An overview of basic watershed processes and the impact of urbanization. The aim is to effectively manage urban watersheds to reduce the impact of land development. Topics include watershed characterization; hydrologic processes; stream characteristics; and the effects of the development process on watersheds, specifically on the hydrology, physical structure, water quality, and biodiversity of aquatic systems.

ENMT 365 Stewardship and Global Environmental Challenges (3)

Recommended: WRTG 112 or equivalent and a more advanced writing course. An interdisciplinary approach to environmental stewardship. The aim is to critically examine the role of the individual and society in global environmental sustainability. Emphasis is on approaches that identify barriers to personal and public participation in behaviors that support environmental sustainability and possible pathways to overcome those barriers.

ENMT 380 Air Quality Management (3)

Prerequisites: ENMT 301 and CHEM 297 (or an environmental chemistry course). Recommended: STAT 200 and BIOL 301 (or a health-related biology course). An overview of air quality management principles and strategies. The goal is to identify the risk and possible causes of air pollution and evaluate air quality management strategies. Discussion covers atmospheric processes and mechanisms, pollutants and sources of air pollution, dispersion, effects, regulations, air pollution control technology and management, indoor air quality pollution, and noise control. Indoor air pollution topics include the study of sick buildings, causes and risk factors, diagnostic protocols, contamination measurement, and problem mitigation.

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ENMT 390 Risk Assessment and Principles of Toxicology (3)

Prerequisite: ENMT 321. Recommended: STAT 200 and WRTG 112 (or more advanced writing course). An overview of the scientific principles and government guidelines for the conduct of environmental health risk assessments. The aim is to conduct risk assessments; collect, analyze, and interpret data; and characterize potential adverse effects of chemical, physical, and biological agents. Topics include the Nuclear Regulatory Commission paradigm for managing risk assessments, identification of health hazards, quantification of dose response relationships, conduct of exposure assessments, and preparation of risk characterization and uncertainty analyses. Discussion also covers the pros and cons of different risk assessment methods and the way to plan, perform, report, and communicate environmental health risk assessments.

ENMT 398 Special Topics in Environmental Management (1)

Specialized study in topics of particular interest in environmental management. May be repeated when topics differ.

ENMT 405 Pollution Prevention Strategies (3)

Prerequisite: ENMT 301. An overview of alternative environmental strategies to minimize, reduce, and prevent pollution. The goal is to integrate knowledge about environmental systems and environmental regulations to minimize, reduce, and prevent pollution. Topics include source reduction, recovery, reuse, recycling, and conservation; material substitution; process modifications; quality assurance, 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. Review also covers economic analysis and regulatory compliance related to these strategies.

ENMT 486A Workplace Learning in Environmental Management (3)

Prerequisites: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

ENMT 486B Workplace Learning in Environmental Management (6)

Prerequisites: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

ENMT 495 Global Environmental Management Issues (3)

(Intended as a final, capstone course to be taken as the student's last ENMT course.) Prerequisites: ENMT 303, ENMT 307, ENMT 321, ENMT 322, and ENMT 340. Recommended: MATH 115 (or MATH 107 and MATH 108), STAT 200, and WRTG 112 (or a more advanced writing course). A study of global environmental management that integrates knowledge gained through previous coursework and experience and builds on that conceptual foundation through integrative analysis, practical application, and critical thinking. The goal is to develop and evaluate environmental management projects and plans based on effective, practical approaches. Topics include economic development and environmental pollution, remediation, and conservation within a multi-faceted scientific, legal, political, and global context. Discussion covers national and international events concerning environmental issues. Case studies and an advanced management project apply principles and concepts to environmental perspectives, sustainability, research issues, and innovative technology solutions.

Experiential Learning

EXCL X001 Supplement to Prior Learning Portfolio (0)

(Students should visit umgc.edu/priorlearning or contact priorlearning@umgc.edu for complete requirements.) Prerequisite: EXCL 301. An opportunity to prepare additional portfolios for courses not previously targeted. The aim is to translate prior life experiences into college credit by developing a portfolio that documents and presents learning specific to targeted courses. Faculty evaluators assess completed portfolios to recommend credit award.

EXCL 301 Prior Learning Portfolio (3)

(Students should visit umgc.edu/priorlearning or contact priorlearning@umgc.edu for complete requirements.) Prerequisite: Formal admission to the program. Instruction in the preparation of a portfolio documenting college-level learning gained through life experiences. The aim is to translate prior life experiences into college credit by developing a portfolio that documents and presents learning specific to targeted courses. Faculty evaluators assess completed portfolios to recommend credit award.

Finance

FINC 321 Fundamentals of Building Wealth (3)

(Formerly BMGT 342. For students majoring in both business and nonbusiness disciplines.) A practical overview of personal finance management and wealth creation that blends financial theory and application. The goal is to develop personal financial management skills (e.g., budgeting income and expenditures and planning for financial security and retirement) and understand elements of the

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U.S. financial structure (including savings and investment alternatives, financing and credit sources, and the role of insurance in protecting income and assets). These skills are utilized in the development of a personal financial plan. Students may receive credit for only one of the following courses: BMGT 342, BMGT 388F, BMGT 388N, FINC 321, or FINC 322.

FINC 328 Small Business Finance (3)

A project-driven study of small business and entrepreneurial finance that emphasizes the financial knowledge and tools needed to develop a successful venture from start-up through growth and maturity. The goal is to identify, assess, and explain the key decision-making processes required of a small business entrepreneur or financial manager. Topics include financial statement analysis, capital acquisition, legal and regulatory compliance, budgeting, forecasting, and client and vendor relationships. Projects include creation of a financial plan and completion of a loan application. Discussion also covers contemporary issues related to finance.

FINC 330 Business Finance (3)

Prerequisites: ACCT 221 and STAT 200. An overview of the theory, principles, and practices of financial management in a business environment. Topics include financial analysis and financial risk, characteristics and valuations of securities, capital investment analysis and decision making, the capital structure of the firm, financial leverage, and international finance. The aim is to examine financial information, identify issues and solve business problems, and make sound business decisions. Emphasis is on the application of financial theory and methods for solving the problems of financial policy that managers face. Students may receive credit for only one of the following courses: BMGT 340, FINC 330, MGMT 398D, or TMGT 320.

FINC 331 Finance for the Nonfinancial Manager (3)

Development of the financial skills needed by functional experts in human resources, marketing, production, and general management. The objective is to interpret finance and accounting documents and apply that information to sound business decision making. Topics include financial statements and forecasting, capital budgeting, project evaluation, working capital management, stocks and bonds, time value of money, and international financial management. Emphasis is on practical applications to facilitate informed discussions with business professionals for financial decision making. Students may receive credit for only one of the following courses: BMGT 341 or FINC 331.

FINC 340 Investments (3)

(Formerly BMGT 343.) Prerequisite: FINC 330. An introduction to financial investments and portfolio management. The goal is to evaluate and critically analyze asset selection and allocation and perform basic portfolio management activities. Topics include

types of securities and securities markets; investment risks, returns, and constraints; portfolio policies and management; and institutional investment policies. Theories, practices, and real-world examples are examined and analyzed. Students may receive credit for only one of the following courses: BMGT 343 or FINC 340.

FINC 351 Risk Management (3)

(Formerly BMGT 346.) Prerequisites: FINC 330 and FINC 340.

A study focused on recognizing and evaluating pure risk facing organizations. The aim is to identify risks to cost control and develop risk management strategies. Discussion covers guides for risk-management decisions concerning the retention, control, and transfer of risk (including insurance). Students may receive credit for only one of the following courses: BMGT 346 or FINC 351.

FINC 352 Life and Health Insurance (3)

A study of the tools and principles of life and health insurance in financial planning for businesses and individuals. The goal is to assess personal needs in order to determine which types of life and health insurance plans fit best. 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 and estate planning. Students may receive credit for only one of the following courses: BMGT 347 or FINC 352.

FINC 355 Retirement and Estate Planning (3)

Recommended: FINC 321, ACCT 220, and ACCT 323 or experience in financial planning. A comprehensive study of retirement and estate planning techniques for individuals, families, and businesses. The aim is to evaluate retirement plans, analyze regulatory considerations of retirement planning, and apply estate planning techniques for businesses and families. Topics include retirement planning and estate planning, as well as regulations relevant to the financial services industry. Discussion covers processes of retirement planning (retirement need, investments, taxes, Social Security, Medicare, qualified versus nonqualified plans, and tax-advantage plans) and estate planning (wills, trusts, asset protection, and life insurance). Content is aligned with the Certified Financial Planner (CFP) curriculum.

FINC 421 Financial Analysis (3)

(For students with general business interests, as well as those majoring or minoring in accounting or finance.) Prerequisites: FINC 330 and FINC 340. An analysis and interpretation of financial statements directed at the decision-making needs of managers, stockholders, and creditors. The aim is to analyze and interpret financial information, apply financial information directly to valuation models, and evaluate growth strategies to maximize company value. Topics include assessment of business performance, pro-

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jection of financial requirements, analysis of capital investment decisions and financing choices, risk assessment, and valuation. Students may receive credit for only one of the following courses: BMGT 498Q or FINC 421.

FINC 430 Financial Management (3)

Prerequisites: FINC 330 and FINC 340. A study of financial management. The objective is to apply financial principles and concepts to assess and solve financial problems and make financial and corporate policy at the executive level. Topics include assessments of the financial health of the organization, company valuation, cost of capital, risk analysis, investment decisions, and financial systems and capital markets. Students may receive credit for only one of the following courses: BMGT 440 or FINC 430.

FINC 440 Security Analysis and Valuation (3)

Prerequisites: FINC 330 and FINC 340. A comprehensive and quantitative examination of financial investments and portfolio management. The aim is to quantitatively evaluate and value assets, critically analyze asset selection and allocation, and apply financial statistics and other evaluation methods to perform basic portfolio management activities and functions. Topics include the analysis, valuation, and selection of securities; investment risks, returns, and constraints; portfolio policies and management; institutional investment policies; and the operation and efficiency of financial markets. Theory, practice, and real-world examples are analyzed to value financial assets and compare alternatives. Students may receive credit for only one of the following courses: BMGT 443 or FINC 440.

FINC 450 Commercial Bank Management (3)

Prerequisites: FINC 330 and FINC 340. An analysis of commercial bank management. The aim is to examine how the changing commercial banking environment has affected profitability and evaluate bank business strategies. Discussion covers the loan function and the management of liquidity reserves, investments for income, and sources of funds. The objectives, functions, policies, organization, structure, services, and regulations of banks are considered. Students may receive credit for only one of the following courses: BMGT 445 or FINC 450.

FINC 460 International Finance (3)

Prerequisites: FINC 330 and FINC 340. An analysis and discussion of financial management issues for the multinational enterprise. The aim is to use financial and economic strategies in quantitative decision making. Topics include the organization and functions of the foreign exchange market and international capital markets; financing foreign trade; and identifying, analyzing, and evaluating the globalization strategies of the multinational enterprise. Students may receive credit for only one of the following courses: BMGT 446 or FINC 460.

FINC 486A Workplace Learning in Finance (3)

Prerequisites: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

FINC 486B Workplace Learning in Finance (6)

Prerequisites: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

FINC 490 Financial Plan Development (3)

(Content aligned with the Certified Financial Planner [CFP] curriculum.) Prerequisites: ACCT 323, FINC 321, FINC 340, FINC 352, and FINC 355. A thorough review of financial planning principles and applications, based on case studies. The objective is to gather and analyze data, evaluate the impact of governmental regulations and economic changes, and effectively communicate a comprehensive financial plan to clients. Topics include taxes, estates, asset protection, debt, credit, investments, insurance, economic theories, the financial planning process, ethics, and risk.

FINC 495 Contemporary Issues in Finance Practice (3)

(Intended as a final, capstone course to be taken in the student's last 15 credits.) Prerequisites: FINC 330 and FINC 340. A study of finance that integrates knowledge gained through previous coursework and experience and builds on that conceptual foundation through integrative analysis, academic research, practical application, and critical thinking. The objective is to apply financial theories and contemporary financial practices to business issues. Emerging issues in finance and business are considered. Individual and group case studies and research papers are used to integrate key financial knowledge in the areas of financial analysis, investments, business valuation, risk, and international finance. Students may receive credit for only one of the following courses: BMGT 495 or FINC 495.

Fire Science

FSCN 302 Fire and Emergency Services Administration (3)

Prerequisite: WRTG 112 or equivalent. A presentation of modern management and planning techniques that apply to organizing a fire department. The objective is to apply management concepts to fire service administration and analyze the community approach to risk reduction. Discussion covers procedures for evaluation and control of budgeting, personnel, communications, and planning. Topics also include the traditional and evolving roles of the fire department in protection, prevention, and community service.

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FSCN 304 Personnel Management for Fire and Emergency Services (3)

Prerequisite: FSCN 302. An examination of personnel practices, including management procedures, collective bargaining, binding arbitration, and applicable legislative and administrative procedures. The aim is to manage emergency service personnel; develop, communicate, and implement organizational goals and objectives; and lead personnel in compliance with regulations and within an ethical framework. Topics include promotion, personnel development, career and incentive systems, validation of physical requirements, and managerial and supervisory procedures.

FSCN 305 Fire Prevention Organization and Management (3)

Prerequisite: FSCN 302. An examination of prevention as the primary community-based strategy for fire protection. The objective is to design, implement, and manage programs addressing community risks; administer prevention programs; and influence change and development of legislation, regulation, and policy. Emphasis is on applying principles to anticipate problems and develop strategies for fire prevention. 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.

FSCN 413 Community Risk Reduction for the Fire and Emergency Services (3)

Prerequisites: FSCN 304 and FSCN 305. An examination of the ethical, sociological, organizational, political, and legal components of community risk reduction. The goal is to analyze environments, design and develop a community risk reduction plan, and implement that plan. A framework for understanding these issues and a methodology for developing a comprehensive community risk reduction plan are provided.

FSCN 416 Emergency Services Training and Education (3)

Prerequisites: FSCN 304 and FSCN 305. An examination of the management and administration of training and education in fire and emergency services. The objective is to manage and administer development programs, integrate concepts in training programs, and analyze and assess programs. Discussion explores how higher education/training contributes to the professional development of fire-service personnel. Topics include the many systems of training and education available and professional development on both individual and organizational levels. Focus is on safety, especially understanding and preventing training deaths and injuries.

French

FREN 111 Elementary French I (3)

(Not open to native speakers of French; assumes no prior knowledge of French. Students with prior experience with the French language should take a placement test to assess appropriate level.) An introduction to the French language. The objective is to listen to, speak, read, and write elementary French in concrete, real-life situations and in culturally appropriate ways. Practice in pronunciation is provided. The diverse language and culture of the French-speaking world is also explored. Students may receive credit for only one of the following courses: FREN 101 or FREN 111.

FREN 112 Elementary French II (3)

(Not open to native speakers of French.) Prerequisite: FREN 111 or appropriate score on a placement test. A continued introduction to the French language. The objective is to listen to, speak, read, and write French in concrete, real-life situations related to oneself and others in culturally appropriate ways. Practice in speaking and listening is provided. The diverse language and culture of the French-speaking world is explored. Students may receive credit for only one of the following courses: FREN 102 or FREN 112.

Geology

GEOL 100 Physical Geology (3)

An introductory study of geology, encompassing the Earth, the materials that constitute its makeup, the structure of those materials, and the processes acting on them. The goal is to understand geological principles and how humans affect geological processes. Topics include the rocks and minerals composing Earth, the movement within Earth, and its surface features and the agents that form them and our environment. Discussion also covers energy and mineral resources. Students may receive credit for only one of the following courses: GEOL 100 or GEOL 101.

German

GERM 111 Elementary German I (3)

(Not open to native speakers of German; assumes no prior knowledge of German. Students with prior experience with the German language should take a placement test to assess appropriate level.) An introduction to the German language. The objective is to communicate in German in some concrete, real-life situations using culturally appropriate language. Aspects of German life and culture are explored through the German language. Students may receive credit for only one of the following courses: GERM 101 or GERM 111.

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GERM 112 Elementary German II (3)

(Not open to native speakers of German.) Prerequisite: GERM 111 or appropriate score on a placement test. A continued introduction to spoken and written German. The goal is to communicate in German in concrete, real-life situations relating to oneself and others. German culture and language are explored. Students may receive credit for only one of the following courses: GERM 102 or GERM 112.

GERM 211 Intermediate German I (3)

Prerequisite: GERM 112 or appropriate score on placement test. Further development of listening, speaking, reading, and writing skills in German. The aim is to communicate in German in real-life situations and social contexts in culturally appropriate ways. Students may receive credit for only one of the following courses: GERM 114, GERM 201, or GERM 211.

GERM 212 Intermediate German II (3)

Prerequisite: GERM 211 or appropriate score on placement test. Further development of listening, speaking, reading, and writing skills in German. The objective is to interact effectively with German-speaking individuals in a variety of personal settings and on issues of topical interest in culturally appropriate ways. Students may receive credit for only one of the following courses: GERM 115, GERM 202, or GERM 212.

GERM 311 Advanced German I (3)

Prerequisite: GERM 212 or appropriate score on placement test. An in-depth review and expansion of German language communication skills. The aim is to express opinions and use narration and description in a variety of personal and professional contexts. Focus is on improving linguistic proficiency while increasing cultural awareness. Students may receive credit for only one of the following courses: GERM 301 or GERM 311.

GERM 314 Modern German-Speaking Cultures (3)

Prerequisite: GERM 212 or appropriate score on placement test. An overview of contemporary life and culture in the German-speaking world, taught entirely in German. The objective is to demonstrate intercultural communication skills, recognize aspects of German-speaking cultures and their significance to global society, and employ strategies to enhance language development and cultural awareness. Discussion covers the social, historical, and political experience of the German-speaking people.

Gerontology

GERO 100 Contemporary Issues in Aging (3)

(Fulfills the general education requirement in behavioral and social sciences.) An overview of the study of aging and the older adult population. The objective is to gain a historical and sociocultural understanding of how the experience of aging has evolved over the last 100 years. The biological, psychological, and social processes of aging in the 21st century and the impact of an aging population on society are examined from a multidisciplinary perspective.

GERO 301 Service/Program Management (3)

(Fulfills the general education requirement in behavioral and social sciences.) Recommended: GERO 100. An exploration and analysis of the managerial aspects of providing health and human services in the field of gerontology through an integrated delivery system. The aim is to integrate concepts, strategies, and best practices for the management of health and human services. Topics include planning, strategic management, marketing, financing, legal issues, and capacity building.

GERO 302 Health and Aging (3)

Recommended: GERO 100. An exploration of the physiological processes of aging that covers normal aging and chronic illness. The goal is to distinguish normal aging from disease and evaluate factors that affect the health of older adults. Topics include biological processes and theories of aging, bodily changes normally associated with aging, long-term and healthcare systems, and related medical terminology. Review also covers substance abuse; environmental factors affecting aging; and ways of promoting health, preventing disease, and assessing health risks.

GERO 306 Programs, Services, and Policies (3)

Recommended: GERO 100 and GERO 302. An overview of the impact of policy related to older adults on U.S. society. The aim is to examine the role of legislative mandates on older adults at both societal and individual levels. Topics include Social Security, Medicare, and the Older Americans Act. Students may receive credit for only one of the following courses: GERO 304 or GERO 306.

GERO 311 Gender and Aging (3)

(Fulfills the general education requirement in behavioral and social sciences.) Recommended: GERO 100. An analysis and discussion of issues related to gender and the aging process. The goal is to evaluate and challenge negative, socially constructed assumptions associated with gender and aging, as well as examine gender-relevant issues in health and well-being after midlife. Discussion covers life transitions, socioeconomic status,

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culture, family and social relationships, ageism, and sexuality and health as each relates to gender. The impact of public policy and services on gender and aging is also addressed. Students may receive credit for only one of the following courses: GERO 311 or GERO 497E.

GERO 320 Psychosocial Aspects of Aging (3)

(Fulfills the general education requirement in behavioral and social sciences.) Recommended: GERO 100. An advanced multidisciplinary examination of the psychosocial forces that affect the aging process. Aspects of aging are analyzed from a number of theoretical perspectives found in psychology, sociology, and social gerontology. The goal is to articulate the impact of biological, sociocultural, and life-cycle forces on psychological and social well-being in post-midlife. Topics include normative and atypical psychological and social functioning in post-midlife; the social construction of aging; and the impact of aging, ageism, and longevity on social structures such as the family, work, retirement, and healthcare. Students may receive credit for only one of the following courses: GERO 220, GERO 320, or PSYC 357.

GERO 338 Health Promotion in Older Adults (3)

Recommended: GERO 100. A project-based exploration of health promotion for an aging population. The objective is to articulate different models of health promotion for older adults and design a health promotion campaign.

GERO 342 Long-Term Care Administration (3)

Recommended: GERO 100. An overview of the administrative and operational issues of long-term care facilities. The aim is to identify common forms of long-term care and articulate the responsibilities of a long-term care administrator. Relationships with personnel and administrative structure are examined. Topics include policy, procedures, insurance, and financing. Discussion also covers the ethical and legal concerns of long-term care.

GERO 390 The Business of Aging (3)

Recommended: GERO 100 and ECON 201 (or ECON 203). A comprehensive study of the sources of economic security for older adults, the problems encountered in retirement, and the impact of an aging population on the nation's economy. The goal is to outline the key sources of economic security received by older adults (including Social Security, pensions, personal savings, Medicare, and Medicaid); examine how economic security varies by race, ethnicity, gender, and social status as people age; evaluate how longevity and the "graying" of society impact the nation's economy; and explore potential solutions to the problems posed by entitlement programs. Topics include retirement planning; financing longevity; health, disability, and long-term-care costs; economic disparities by social group; and the international economics of aging.

GERO 427 Culture and Aging (3)

(Fulfills the general education requirement in behavioral and social sciences.) Recommended: GERO 100. An interdisciplinary examination of how different cultures interpret and deal with aging and the life cycle. Focus is on the increasingly heterogeneous aging population in the United States. The goal is to raise critical awareness of how aging is experienced across cultures. Topics include cross-cultural theory and research on aging; global demographics of aging; cross-cultural perspectives of norms and values regarding work, family, and community roles for older adults; the social and economic status of older adults; intergenerational relationships; ethical caregiving; end-of-life issues; social services; and social policy. Health disparities among older adults of certain ethnicities within the United States are also addressed. Students may receive credit for only one of the following courses: GERO 327, GERO 410, or GERO 427.

GERO 486A Workplace Learning in Gerontology (3)

Prerequisites: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

GERO 486B Workplace Learning in Gerontology (6)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

GERO 495 Special Topics in Development and Health (1-3)

Specialized study in gerontology and related topics focusing on issues in development and health. 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 focusing on social and family relations. May be repeated to a maximum of 6 credits when topics differ.

GERO 497 Special Topics in Administration and Planning (1-3)

Specialized study in gerontology and related topics focusing on administration and planning. May be repeated to a maximum of 6 credits when topics differ.

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Government and Politics

GVPT 100 Introduction to Political Science (3)

A survey of the basic principles of political science. The objective is to define the main features of primary systems of political economy to understand differing methods of governance and articulate consequences of government actions in a globally interdependent system. Topics include the relationship of political science to the other social sciences; modern democracy, political ideology, and political socialization; the function of public opinion, mass media, interest groups, and political parties; the basic institutions of government and the separation of powers; and the role of international relations and globalization.

GVPT 101 Introduction to Political Theory (3)

An overview of the main schools of political theory, including democracy, authoritarianism, and alternative theories. The aim is to demonstrate familiarity with important thinkers and major works in the history of political theory; use theoretical language to analyze and critique political behavior and events; identify the strengths and weaknesses of different forms of government; and demonstrate knowledge of crucial concepts (justice, power, authority, the state, social contract, etc.) and their history. Topics include the philosophical foundations of liberalism, socialism, and conservatism and the core political concepts of justice, power, and authority.

GVPT 125 Understanding 21st-Century Global Challenges (3)

An examination of the changing face of international affairs in a post-Cold War world and the role of the United States in the evolving international order. The aim is to recognize and explain trends in international affairs, apply theoretical frameworks in international relations, and analyze world events to explain and evaluate global developments. Focus is on the roles of key international institutions, states, nonstate actors, and globalization in the evolution of global relations since the collapse of the Soviet Union. Discussion also covers various influences on contemporary affairs, including technology, migration, disease, economic development, and terrorism. Students may receive credit for only one of the following courses: GVPT 125 or GVPT 401.

GVPT 170 American Government (3)

A comprehensive study of government in the United States, including the basic principles of American government and political culture. The aim is to explain the vertical and horizontal structure of the American government and the roles of the three federal branches, bureaucracies, and the state governments; describe the development of the American political system and its impact on the political landscape; and explain the processes of the elec-

toral system, political parties, and interest groups to persuade and influence. Institutions, processes, and public policies are examined from a cross-cultural perspective.

GVPT 200 International Political Relations (3)

A study of the major factors underlying international relations, the methods of conducting foreign relations, and the means of avoiding or alleviating international conflicts. The objective is to interact with global communities, contribute to policy formation, analyze differing worldviews, and apply historical and cultural contexts to identify probable outcomes of disputes. Students may receive credit for only one of the following courses: GVPT 200 or GVPT 300.

GVPT 280 Comparative Politics and Government (3)

An introductory study of institutional patterns and trends in a variety of countries with dissimilar governmental styles. The goal is to compare the stages of political development in the modern state system on a spectrum ranging from liberal democracies to authoritarian regimes. Discussion covers ethnic conflict and economic inequality in relation to the success and failure of governmental approaches in solving compelling issues.

GVPT 306 Global Political Economy (3)

A study of the relationship between political and economic processes in international affairs. Discussion covers the effect of globalization on the global environment, the economy, world peace, the power of the nation-state, and inequality between nation-states.

GVPT 308 International Human Rights (3)

Recommended: GVPT 100. An examination of the principles and practices governing human rights from ancient times to contemporary international conventions and U.N. declarations. The aim is to analyze, evaluate, and discuss present national/international pushes for human rights and emancipation. Students may receive credit for only one of the following courses: GVPT 308 or GVPT 399Y.

GVPT 403 Law, Morality, and War (3)

Prerequisite: WRTG 112 or equivalent. A study of "just war" traditions. The objective is to make informed decisions and analyze conflict. Discussion covers the theoretical and practical connections between law, war, and morality.

GVPT 406 Global Terrorism (3)

Prerequisite: WRTG 112 or equivalent. An examination of the development of global terrorism and its impact on the international community. The goal is to participate in strategy and policy formulation and implementation, evaluate threats, and assess infrastructures that support global terrorist organizations. Students may receive credit for only one of the following courses: GVPT 401A or GVPT 406.

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GVPT 407 State Terrorism (3)

An examination of the use of force and power (terrorism) by states against various populations to advance the interests of their civilization or state. The objective is to apply knowledge of culture, tradition, ideology, and methodology to comprehend state terrorism; analyze risk to national security; and explain how domestic climates and international relationships interact to support state terrorism. Topics include state behavior and norms; state interests, power, and force; application of power and force; and coercion within and among civilizations. Students who have completed GVPT 401B or GVPT 401C may not receive credit for GVPT 407.

GVPT 408 Counterterrorism (3)

An investigation of counterterrorism (including its historical context), focusing on the evaluation of threats and the formulation of defeat strategies. The aim is to evaluate response strategies, help improve offensive and defensive planning, and construct a defeat strategy for a terrorist threat. Students may receive credit for only one of the following courses: GVPT 399H or GVPT 408.

GVPT 409 Terrorism, Antiterrorism, and Homeland Security (3)

An advanced examination of the impact of terrorism on the homeland security of the United States since the attacks of September 11, 2001. The objective is to more fully understand the concepts of homeland security within a federal system. Topics include the National Strategy for Homeland Security and the Patriot Act, their effect on civil liberties and civil rights, the changing face of terrorism in the United States, intelligence systems, and critical infrastructure protection. Students may receive credit for only one of the following courses: GVPT 409 or GVPT 498X.

GVPT 444 American Political Theory (3)

Prerequisite: WRTG 112 or equivalent. A study of the development and growth of American political concepts from the colonial period to the present. The objective is to apply the rule of law to the decision-making process; interpret, apply, and synthesize the concepts of individual rights and collective responsibilities; and evaluate the interconnection among war, peace, and diplomacy.

GVPT 457 American Foreign Relations (3)

Prerequisite: WRTG 112 or equivalent. A study of the principles and machinery of American foreign relations. The goal is to apply historical themes of American foreign policy to contemporary international relations, incorporate tenets of international law into American diplomatic approaches, and inform and influence policy making. Emphasis is on the conduct of the U.S. Department of State and the Foreign Service. Analysis covers the major foreign policies of the United States.

GVPT 475 The Presidency and the Executive Branch (3)

Prerequisite: WRTG 112 or equivalent. A study of the president's influence on legislative matters, the president's function in the executive branch (including domestic and foreign policy), and the president's role in his or her political party. The aim is to analyze contemporary uses of the presidency, evaluate an election strategy, and communicate realities of the presidential office.

GVPT 486A Workplace Learning in Government and Politics (3)

Prerequisites: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

GVPT 486B Workplace Learning in Government and Politics (6)

Prerequisites: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

GVPT 495 Advanced Seminar in Political Science (3)

(Intended as a capstone course to be taken in a student's last 15 credits.) Prerequisites: WRTG 112 or equivalent and 9 upper-level credits in GVPT coursework. A study of political science that integrates knowledge gained through previous coursework and experience. The aim is to build on that conceptual foundation through integrative analysis, practical application, and critical thinking. Concepts and methods of political science are applied in producing a political, policy, or position paper for a project organization.

GVPT 498 Advanced Topics in Government and Politics (1–3)

Recommended: GVPT 100. In-depth study of topics of specialized interest. May be repeated to a maximum of 6 credits when topics differ.

Graphic Communication

GRCO 100 Introduction to Graphic Communication (3)

(Access to Adobe Photoshop and Illustrator required.) An introduction to graphic communication and the various roles and responsibilities of the profession. The aim is to demonstrate the skills and knowledge necessary for graphic communication professionals. Design theories and content are explored through hands-on projects. Topics include industry standards, portfolios, and research and assessment practices.

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GRCO 230 Typography and Layout (3)

Prerequisites: GRCO 100 and ARTT 120. An introduction to typography and layout as compositional tools to construct graphic communications. The goal is to analyze and determine appropriate typefaces and apply typographical skills to layout design. Emphasis is on the individual aspects of the letterform and the interrelationship of letters on the page. Discussion covers the process of design, from research to comprehensive mock-up, to produce portfolio-quality designs.

GRCO 350 Intermediate Graphic Communication: Portfolio Development (3)

Prerequisite: GRCO 230. The development of a professional graphic communications portfolio. The goal is to assemble a select body of work for web presentation that demonstrates knowledge of color, typography, composition, and design. Projects are designed to synthesize and refine basic design skills. Emphasis is on gathering the elements of a cohesive portfolio and presenting a personal body of work. Students may receive credit for only one of the following courses: ARTT 250 or GRCO 350.

GRCO 354 Digital Media (3)

(Formerly ARTT 354.) Prerequisite: GRCO 230. An introduction to digital media and design. The objective is to use current technologies in raster and vector image creation, two-dimensional animation, and the integration of text with graphics in cohesive layouts and to develop and oversee static and animated digital media projects through all stages of production. Focus is on advanced illustrative techniques for animated digital media, web graphics, and social media on a commercial level. Students may receive credit for only one of the following courses: ARTT 354 or GRCO 354.

GRCO 355 Digital Media II (3)

Prerequisite: GRCO 354. Further examination of design for interactive media that incorporate raster- and vector-based visuals, video files, and brand generation. The goal is to use current technologies to develop functional static and responsive multimedia layouts for a range of platforms, including desktop, hand-held, and mobile devices. Discussion covers strategies for developing work for a variety of output applications. Focus is on production of portfolio-caliber projects that simulate real-world work experience.

GRCO 450 Advanced Graphic Communication: Professional Branding (3)

Prerequisites: GRCO 350 and GRCO 355. A review of professional branding and development of a portfolio and personal branding package. The objective is to synthesize, refine, and expand an existing portfolio to reflect personal branding. Focus is on refining a portfolio through peer review, critique, and assessment. Projects include creating a personal mission statement, identity package, and video component.

GRCO 479 Motion Graphics (3)

(Formerly ARTT 479.) Prerequisite: GRCO 354 or ARTT 354. A study of media production. Discussion covers the aesthetic and practical aspects of creating moving images in a short movie or documentary. The goal is to understand the principles of preproduction, production, and postproduction. Students may receive credit for only one of the following courses: ARTT 479 or GRCO 479.

GRCO 486A Workplace Learning in Graphic Communication (3)

Prerequisites: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

GRCO 486B Workplace Learning in Graphic Communication (6)

Prerequisites: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

GRCO 495 Graphic Communication Portfolio (3)

(Formerly ARTT 495. Intended as a final, capstone course to be taken in a student's last 15 credits.) Prerequisite: GRCO 450, GRCO 458, or GRCO 479. A portfolio-driven study of business and professional practices in the field of graphic communication. The goal is to be prepared for a career in graphic communication. Activities include review of existing work, creation of portfolio projects, and production of a professional portfolio (including a résumé). Focus is on applying skills (in areas such as motion graphics, typography, digital media, illustration, and commercial design) acquired through previous study. Students may receive credit for only one of the following courses: ARTT 495 or GRCO 495.

Health Services Management

HMGT 300 Introduction to the U.S. Healthcare Sector (3)

Prerequisite: WRTG 112 or WRTG 101. An overview of healthcare organizations in the United States and current and emerging concepts, trends, policies, and issues in healthcare. The aim is to explain the structure of the U.S. healthcare sector, understand the role of healthcare managers in meeting industry standards of care, and apply knowledge of healthcare workforce issues to solve management challenges. Students may receive credit for only one of the following courses: BMGT 361, HMGT 100, or HMGT 300.

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HMGT 307 Managerial Epidemiology and Decision Making in Healthcare (3)

Prerequisites: HMGT 300 and STAT 200. An overview of epidemiologic principles and tools applicable to decision making in healthcare. The objective is to apply the basic principles of descriptive epidemiology to healthcare planning, directing, controlling, organizing, staffing, and financial management; critically evaluate the factors that influence the health status of populations served; and distinguish among study designs in terms of causal inference and sources of bias. Focus is on applying epidemiological and decision-making tools to integrative decision making in healthcare.

HMGT 310 Healthcare Policies (3)

Prerequisite: HMGT 307. An overview and analysis of public policies that govern the organization, delivery, and financing of health services in the United States. The aim is to evaluate national, state, and local policies to determine their impact on the delivery of healthcare services.

HMGT 320 Management in Healthcare Organizations (3)

Prerequisite: HMGT 307. An introduction to management in the healthcare services field. The aim is to explain key management concepts and apply them to the management of health services organizations. Discussion covers the management skills and capabilities that are essential for effective supervision and leadership. An overview of the unique requirements of healthcare organizations and their management is provided. Focus is on the application of essential management and leadership skills in a healthcare environment. Students may receive credit for only one of the following courses: BMGT 367 or HMGT 320.

HMGT 322 Healthcare Financial Management (3)

Prerequisite: HMGT 300 (or BMGT 361) and HMGT 310. An overview of the acquisition, allocation, and management of the financial resources of healthcare organizations. Economic and accounting practices are discussed in terms of budget administration, cost analysis, financial strategies, and internal controls. The goal is to examine financial information and regulatory requirements and policies, identify issues and solve problems, and make sound financial decisions in the healthcare field. Students may receive credit for only one of the following courses: HMGT 322 or HMGT 440.

HMGT 335 Healthcare Marketing (3)

Prerequisite: HMGT 307. An examination of the makeup of the healthcare market, the role of marketing in the delivery of healthcare, and relevant consumer behavior. Topics include basic principles and key concepts related to the design and implementation of marketing efforts in health services organizations. The goal is to develop and evaluate healthcare marketing plans. Discussion covers the marketing process and the development and analysis of strategic healthcare marketing plans.

HMGT 372 Legal and Ethical Issues in Healthcare (3)

Prerequisite: HMGT 300 or NURS 300. An examination of legal and ethical issues encountered in healthcare management and the ramifications of those issues on the delivery of health services and patient care. The aim is to apply ethical principles and practice within legal and ethical standards of healthcare.

HMGT 400 Research and Data Analysis in Healthcare (3)

Prerequisites: HMGT 320 and STAT 200. An introduction to research methods and the process of data identification and analysis in the healthcare field. The objective is to inform healthcare decision making and formulate research hypotheses. Emphasis is on the analytic process, especially in the presentation and interpretation of results. Topics include the use of healthcare databases, the analysis of problems and issues, and evaluation of research in healthcare settings. Students may receive credit for only one of the following courses: HMGT 398C or HMGT 400.

HMGT 420 Healthcare Facilities Management (3)

Prerequisite: HMGT 320. An examination of the organization and operation of hospitals and freestanding ambulatory care centers, with a focus on the manager's role in internal operations and external relations. The objective is to understand the key issues driving healthcare facilities management and apply sound management principles to ensure successful operations. Discussion covers managed care programs and their impact on healthcare facilities management.

HMGT 435 Healthcare Economics (3)

Prerequisites: HMGT 300 (or BMGT 361) and HMGT 310. A comprehensive and analytical study of basic economics and its relationship to the delivery of healthcare. The aim is to apply the principles of economics to healthcare management and to anticipate the impact of economics on the outcomes of healthcare management decisions. Topics include the microeconomic aspects of the organization and delivery of healthcare, financing and other major components of the healthcare system, and economic factors that influence the delivery of healthcare.

HMGT 486A Workplace Learning in Healthcare Services Management (3)

Prerequisites: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

HMGT 486B Workplace Learning in Healthcare Services Management (6)

Prerequisites: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration

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of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

HMGT 495 Strategic Planning and Leadership in Healthcare (3)

(Intended as a final, capstone course to be taken in a student's last 15 credits.) Prerequisite: HMGT 320. A study of strategic planning and leadership within a healthcare organization. The aim is to integrate the knowledge and experience gained from previous study and build on that conceptual framework through analysis, practical application, and critical thinking. Leadership qualities and skills are also covered.

History

HIST 115 World History I (3)

Recommended: WRTG 112 or equivalent. A survey of global civilizations from prehistory to the 1500s. The aim is to explain the impact of environmental conditions on the development of civilizations using basic geographical knowledge; describe how human contacts, global connections, and migrations contribute to the development of civilizations; and compare the development of institutions (social, political, familial, cultural, and religious) to explain their impact on societal transformations. Focus is on examining what history is and thinking critically about history by analyzing historical approaches and methods.

HIST 116 World History II (3)

Recommended: WRTG 112 or equivalent. A survey of global civilizations from the 1500s to the present. The aim is to explain the development of new political and economic systems using basic geographical knowledge; describe how human contacts, global connections, and migrations contribute to the development of nations and global systems; and compare the development of institutions (social, political, familial, cultural, and religious) to explain their impact on societal transformations. Focus is on examining what history is and thinking critically about history by analyzing historical approaches and methods.

HIST 125 Technological Transformations (3)

A focused survey of the intersection of technology and history and the evolutionary process that marks what we call progress. The objective is to apply historical precedent to everyday responsibilities and relationships in order to advance the goals and ideals of contemporary society; compare and contrast historical eras; and describe how events influence our sense of time, space, and technology.

HIST 141 Western Civilization I (3)

Recommended: WRTG 112 or equivalent. A survey of the history of Western civilization from antiquity through the Reformation. The objective is to chart major societal changes; identify major conflicts and wars; describe the evolution of religions; and recognize how philosophy and the arts reflect and influence peoples' lives, cultures, and societies. The political, social, and intellectual developments that formed the values and institutions of the Western world are examined.

HIST 142 Western Civilization II (3)

Recommended: WRTG 112 or equivalent. A survey of the history of Western civilization from the Reformation to modern times. The goal is to chart major societal changes; identify major conflicts and wars; describe the evolution of religions; and recognize how philosophy and the arts reflect and influence peoples' lives, cultures, and societies.

HIST 156 History of the United States to 1865 (3)

A survey of the United States from colonial times to the end of the Civil War. The establishment and development of national institutions are traced. The aim is to locate, evaluate, and use primary and secondary sources and interpret current events and ideas in a historical context. Students may receive credit for only one of the following courses: HIST 156 or HUMN 119.

HIST 157 History of the United States Since 1865 (3)

A survey of economic, intellectual, political, and social developments since the Civil War. The objective is to use primary and secondary sources to describe U.S. historical events and interpret current events and ideas in a historical context. Discussion covers the rise of industry and the emergence of the United States as a world power. Students may receive credit for only one of the following courses: HIST 157 or HUMN 120.

HIST 202 Principles of War (3)

A study of the nine classic principles that guide the conduct of war at the strategic, operational, and tactical levels and form the foundation of the art and science of the military profession. The aim is to use primary and secondary historical resources to explore how past theory and practice have shaped the underlying policy, strategic planning, and operational procedures of today's military and national security agencies.

HIST 289 Historical Methods (3)

Prerequisite: A 100-level HIST course. An introduction to historical methods, approaches, and techniques. The goal is to explain what history is and why it matters, identify historical paradigms, and employ the moral and ethical standards of the historical profession. Focus is on the philosophical and practical skills employed by historians.

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HIST 309 Historical Writing (3)

Prerequisite: HIST 289. A study of the historical research and writing process. The goal is to construct a framework for an original historical research project, locate and evaluate source materials, and demonstrate proficiency in research methods.

HIST 316L The American West (3)

An examination of the exploration, settlement, development, and mythology of the American West, from 1490 to 1990, with attention paid to the role of the West as a key factor in the formation of national identity. Assignments include advanced reading and research.

HIST 326 The Roman Republic (3)

Prerequisite: Any writing course. A study of ancient Rome during the period 753 to 44 BC, from its founding to the assassination of Julius Caesar. The goal is to use primary and secondary historical resources to explore Roman thought, demonstrate its influence in the modern Western world, and apply it to modern contexts. Focus is on Rome's conquest of the Mediterranean world, the social and political pressures that led to that conquest, and 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 337 Europe's Bloodiest Century (3)

An investigation of the political, economic, and cultural development of Europe since 1914, with emphasis on the factors involved in the two world wars and their worldwide effects and significance. The objective is to evaluate causes, courses, and consequences of armed conflicts in Europe during the 20th century to interpret their effects on contemporary society.

HIST 365 Recent America: 1945 to the Present (3)

Prerequisite: A writing course. Recommended: WRTG 291. An investigation of U.S. history from the end of World War II to the events of September 11, 2001. The goal is to identify events, individuals, movements, and technological developments; synthesize primary and secondary resources; and analyze the significance of social, cultural, and political events. Topics include social turmoil, the Cultural Revolution, the role of the United States in the world, economic trends, military conflicts, consumerism, political and public scandals, and globalization.

HIST 377 U.S. Women's History: 1870 to 2000 (3)

An examination of the history of women in the United States from 1870 to the eve of the 21st century. The goal is to examine primary and secondary sources and documents to comprehend and articulate the impact of gender on the historical experiences of American women. Historical methodologies that focus on the ways in which race, class, ethnicity, and sexuality have shaped these experiences are used to analyze the varied experiences of U.S. women. The relationship between these experiences and the

larger historical forces of the era, including social movements, technology, and changing family roles and structure, is evaluated. Students may receive credit for only one of the following courses: HIST 211, HIST 367, or HIST 377.

HIST 381 America in Vietnam (3)

Prerequisite: A writing course. Recommended: WRTG 291. An examination of the complexity of the lengthy involvement of the United States in Vietnam. The goal is to engage in divergent historical interpretations and develop personal conclusions and perspectives about America's role in Vietnam and its legacy. Discussion covers the social, cultural, political, and military dimensions of the Vietnam War, beginning with the declaration of Vietnamese independence at the conclusion of World War II. Emphasis is on the influence of the media in shaping government policy and public opinion. Students may receive credit for only one of the following courses: BEHS 337 or HIST 381.

HIST 392 History of the Contemporary Middle East (3)

Prerequisite: A writing course. Recommended: WRTG 291. A survey of the history of the Middle East from the late 19th century to the present. The aim is to identify the important events of the last century in the Middle East; understand the sources of contention in that area; and examine the ideology, politics, and culture of the area and how they impact U.S.-Middle East relations. Focus is on major political, economic, social, and cultural trends that inform current events in the region. Topics include the late Ottoman Empire, European colonialism, the rise of nationalism and nation-states, the Arab-Israeli conflict, political Islam, the role of the United States in the region, and contemporary approaches to modernity in the Middle East.

HIST 461 African American History: 1865 to the Present (3)

Prerequisite: A writing course. Recommended: WRTG 291. An examination of experience of African Americans in the United States since the Civil War. The objective is to examine the significance of the emancipation of African Americans and various leadership and philosophical perspectives within the African American community. Topics include emancipation and Reconstruction; segregation, accommodationism, and institution building; migration and urbanization; resistance and the birth and growth of the civil rights movement; and the problem of race and racism as a national issue with global impact in the modern world.

HIST 462 The U.S. Civil War (3)

An examination of the origins, conduct, and impact of the American Civil War and Reconstruction (1850–77). The goal is to apply historical methodology to issues of the Civil War and Reconstruction; assess Civil War strategies, tactics, and operations; and evaluate how race, culture, politics, and technology affected the course of the Civil War and Reconstruction.

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HIST 464 World War I (3)

Prerequisite: Any writing course. An intensive study of the First World War. Topics include the development of nationalism and socialism in late 19th-century Europe, the causes of the First World War, trench warfare on the western front, war in the Balkans, total war on the home fronts, the Russian Revolution of 1917, the collapse of the Central Powers, the 1918 settlements, the postwar conflicts that continued to haunt Europe until 1923, and the concept of the Lost Generation.

HIST 465 World War II (3)

An investigation of the nature of the Second World War. The aim is to analyze the factors that contributed to World War II, investigate the influences of wartime ideologies, and examine how warfare accelerated advances in science and technology. Topics include the origins of the war; the political, military, economic, and social circumstances of the war and their impact and legacy; and the extent to which the war changed the world that we live in.

HIST 480 History of China to 1912 (3)

A study of the history of China from Confucius (around 500 BC) to the demise of the Qing Dynasty in 1912. The objectives are to interpret, educate, and advise others based on a historical, cultural, and social awareness of traditional China. Emphasis is on the changes within Chinese political, social, cultural, and philosophical structures that have molded the history of China and its peoples.

HIST 482 History of Japan to 1800 (3)

Prerequisite: A writing course. Recommended: WRTG 291. An examination of traditional Japanese civilization from the age of Shinto mythology to the late Edo period. The aim is to interpret, educate, and advise others based on a historical, cultural, and social awareness of traditional Japan.

HIST 483 History of Japan Since 1800 (3)

Prerequisite: A writing course. Recommended: WRTG 291. An examination of Japan's emergence as an industrial society and world power. The goal is to interpret, educate, and advise others based on a historical, cultural, and social awareness of modern Japan. Discussion covers Japan's role in World War II, postwar recovery, and re-emergence as an exporter of cultural goods.

HIST 486A Workplace Learning in History (3)

Prerequisites: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

HIST 486B Workplace Learning in History (6)

Prerequisites: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The

integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

HIST 495 Senior Thesis in History (3)

(Intended as a final, capstone course to be taken in a student's last 15 credits, preferably a year after completing HIST 309.) Prerequisites: At least 21 credits in HIST courses, including HIST 289 and HIST 309. Intensive research into a specific topic in history of the student's choice. The objective is to produce a substantial, original historical research project suitable for presentation or publication.

Homeland Security

HMLS 302 Introduction to Homeland Security (3)

Prerequisite: WRTG 112 or equivalent. An introduction to the theory and practice of homeland security in both the public and private sector at national, regional, state, and local levels. The objective is to apply management concepts to homeland security, identify legal and policy issues related to homeland security, and compare the four phases of homeland security. An overview of the administrative, legislative, and operational elements of homeland security programs and processes (including a review of homeland security history, policies, and programs) is provided. Topics include the threat of terrorism and countermeasures, including intelligence, investigation, and policy that support U.S. homeland security objectives.

HMLS 304 Strategic Planning in Homeland Security (3)

Prerequisite: HMLS 406. Recommended: HMLS 310, HMLS 408, HMLS 414, and HMLS 416. An examination of the fundamentals of strategic planning necessary for the maintenance of domestic security and the operation of the homeland security organization in the public and private sectors. The goal is to develop and analyze homeland security strategic plans. Topics include organizational priorities, planning documents, policy development, legislation, financial operations, and the evaluation process. Analysis covers threat, risk, vulnerability, probability, and impact as parameters for decision making and resource allocation.

HMLS 310 Homeland Security Response to Critical Incidents (3)

Prerequisites: HMLS 302 and HMLS 406. A real-world assessment of the issues involved in responding to homeland security critical incidents. The aim is to prepare for future challenges, integrate critical incident responses at all levels, and analyze the effect of regulations and laws on critical incident response. Discussion covers historical and potential incidents as they relate to resources, cooperation, politics, regulations, operations, and postincident response.

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HMLS 406 Legal and Political Issues of Homeland Security (3)

Prerequisite: HMLS 302. A study of the legal aspects of and public policy in homeland security. The aim is to analyze governmental and private-sector roles and form a model homeland security policy. The development of public policy in homeland security is examined at local, regional, national, and international levels. Topics include surveillance, personal identity verification, personal privacy and redress, federal legislation passed in the aftermath of the terrorist attacks of 2001, the rights of foreign nationals, the rights of U.S. citizens, the governmental infrastructure for decisions concerning legal rights, and the difficulties of prosecuting terrorist suspects (such as jurisdictional issues, rules of evidence, and prosecution strategies).

HMLS 408 Infrastructure in Homeland Security (3)

Prerequisite: HMLS 406. An examination of infrastructure protection at international, national, regional, state, and local levels. The objective is to assess threat, risk, and vulnerabilities and recommend protective measures. Topics include critical infrastructure at all levels of government, the private sector, and the international community. An overview of U.S. homeland security policy as it relates to the protection of critical infrastructures and key assets (including the roles of the federal, state, and local governments and the private sector in the security of these resources) is provided. Focus is on risk reduction and protection of critical infrastructures using available resources and partnerships between the public and private sectors.

HMLS 414 Homeland Security and Intelligence (3)

Prerequisite: HMLS 406. A study of the role of intelligence in homeland security. The objective is to interpret the concepts of information; analyze the production of intelligence; and recognize the U.S. intelligence and law enforcement communities, as well as other agencies and organizations that have a part in the nation's homeland security intelligence activities. Topics include the various steps of the intelligence process: the collection, analysis, sharing, and dissemination of information between governments and between government and the private sector. Emphasis is on evaluating current intelligence and enforcement efforts. Discussion also covers future challenges and opportunities for intelligence operations.

HMLS 416 Homeland Security and International Relations (3)

Prerequisite: HMLS 406. An examination of the relationship of international institutions to U.S. homeland security policy, intelligence, and operations. The aim is to incorporate a global perspective in the development of U.S. homeland security, analyze international institutions that influence U.S. homeland security, and integrate international information sharing in public- and

private-sector approaches to security. Domestic security operations abroad are compared to U.S. policy, laws, and procedures. Topics include the commonality of global approaches to domestic security everywhere and the value of information sharing between governments and international institutions.

HMLS 495 Public Safety Policies and Leadership (3)

(Intended as a final, capstone course to be taken in a student's last 15 credits.) Prerequisites: At least 15 credits in upper-level EMGT, FSCN, HMLS, or PSAD courses (numbered 300 or 400). A study of leadership theories, skills, and techniques used in the public safety professions. The interdisciplinary perspective—encompassing criminal justice, emergency management, fire science, and homeland security—is designed to support integrated public safety management. A review of current issues and contemporary leadership styles in the public safety professions integrates knowledge and principles gained through previous coursework. Case studies and exercises are used to address challenges in strategic planning. Other tools focus on evaluation of personal leadership styles and techniques.

Humanities

HUMN 100 Introduction to Humanities (3)

An introduction to the humanities through a review of some of the major developments in human culture. The goal is to analyze how societies express their ideas through art, literature, music, religion, and philosophy and to consider some of the underlying assumptions about the way societies are formed and run. Focus is on developing the conceptual tools to understand cultural phenomena critically.

HUMN 344 Technology and Culture (3)

Recommended: HUMN 100. An overview of the impact of technology on culture. The goal is to interpret, evaluate, and respond to the role of technology in daily life. Topics include the nature of technology; how technology influences events; how events influence the development of technology; and the interaction between technology and human welfare in medicine, warfare, daily life, entertainment, government, and science.

HUMN 351 Myth in the World (3)

A presentation of myths from around the globe. The goal is to examine the interface between myths and cultural forms such as literature, art, and religion. Topics include sacred places and objects, goddesses and gods, heroes and tricksters, and stories of creation and destruction. Discussion also covers implicit values in the myths that shape cultural and individual identity and affect the social landscape.

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HUMN 495 Humanities Seminar (3)

(Intended as a final, capstone course to be taken in a student's last 15 credits.) Prerequisites: HUMN 100, an upper-level ARTH, an upper-level ENGL, an upper-level HUMN, and an upper-level PHIL course. A study of humanities that synthesizes knowledge gained through previous study. An individually chosen research project is used to examine the nature of human responsibility to self, others, and the environment; the role of intellectual inquiry in human life; and the role of creativity in human life. Career options are also explored.

Human Resource Management

HRMN 300 Human Resource Management (3)

A basic study of the strategic role of human resource management. The objective is to apply knowledge of human behavior, labor relations, and current laws and regulations to a working environment. Topics include employment laws and regulations, diversity in a global economy, total rewards management, and training and development for organizational success. Students may receive credit for only one of the following courses: BMGT 360, HRMN 300, or TMGT 360.

HRMN 302 Organizational Communication (3)

A study of the structure of communication in organizations. The goal is to apply theory and examples to improve managerial effectiveness in communication and negotiation. Problems, issues, and techniques of organizational communication are analyzed through case histories, exercises, and projects. Students may receive credit for only one of the following courses: BMGT 398N, HRMN 302, MGMT 320, MGST 315, or TEMN 315.

HRMN 362 Labor Relations (3)

A survey of contemporary labor relations practices. The aim is to research and analyze labor relations issues and support the labor relations process. Discussion covers the history of organized labor in the United States, the role of third parties, organizing campaigns, the collective bargaining process, and the resolution of employee grievances. Students may receive credit for only one of the following courses: BMGT 362 or HRMN 362.

HRMN 367 Organizational Culture and Change (3)

An examination of the nature, definitions, theories, and aspects of organizational culture. The goal is to apply knowledge of organizational culture to develop a change-management plan. Analysis covers patterns of behavior and their relationship to organizational culture, especially the impact of the organization's business on employee behavior and culture. Topics include the

role of nationality, gender, and race within organizational culture; implications of addressing organizational challenges; theory versus practice; and the relative roles of the individual, groups, and the organization in a cultural context. Students may receive credit for only one of the following courses: BMGT 398T or HRMN 367.

HRMN 392 Stress Management in the Workplace (1)

(Formerly MGST 398H.) An overview of the impact of stress in the workplace. The aim is to identify and apply strategies to reduce the impact of stress in the workplace. Students may receive credit for only one of the following courses: BMGT 398Y, HRMN 392, MGMT 398Y, or MGST 398H.

HRMN 395 The Total Rewards Approach to Compensation Management (3)

Prerequisite: HRMN 300. An exploration of alternative compensation philosophies that define total rewards as everything that employees value in the employment relationship. The objective is to design a total rewards program that ensures organizational success. Topics include building and communicating a total rewards strategy, compensation fundamentals, the conduct and documentation of a job analysis, linking pay to performance, employee motivation, and performance appraisal. Strategies such as incentive cash and/or stock compensation programs, employee ownership, benefits, and nonmonetary rewards are discussed and evaluated. The interrelationships among compensation, motivation, performance appraisal, and performance within the organization are examined. Discussion also covers the design and implementation of a total rewards program, including organizational compatibility. Students may receive credit for only one of the following courses: BMGT 388L, HRMN 390, or HRMN 395.

HRMN 400 Human Resource Management: Issues and Problems (3)

Prerequisite: HRMN 300. 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 goal is to research and evaluate issues and present strategic solutions. The influence of federal regulations (including equal opportunity, sexual harassment, discrimination, and other employee-related regulations) is analyzed. A review of research findings, readings, discussions, case studies, and applicable federal regulations supports the critical evaluation of human resource problems. Students may receive credit for only one of the following courses: BMGT 460, HRMN 400, or TMGT 360.

HRMN 406 Employee Training and Development (3)

Prerequisite: HRMN 300. An examination of employee training and human resource development in various organizations. Topics include the development, administration, and evaluation of training programs; employee development; career development; and

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organizational change. Issues in employee development (including assessment of employee competencies, opportunities for learning and growth, and the roles of managers in employee development) are explored. Students may receive credit for only one of the following courses: BMGT 498I, HRMN 406, or MGMT 498I.

HRMN 408 Employment Law for Business (3)

(Designed for managers and human resource professionals.) Recommended: HRMN 300. A conceptual and functional analysis of the legal framework of employment relations. The aim is to understand employment law; comply with laws and regulations; and evaluate rights, obligations, and liabilities in the employment process, from hiring and staffing to compensation and layoff. Topics include ethical considerations; discrimination based on race, national origin, religion, sex, affinity and sexual orientation, age, and disability; the hiring process, testing, and performance appraisal; employee privacy; wrongful discharge; employee benefits; health and safety; independent contractors; and labor unions. Students may receive credit for only one of the following courses: BMGT 468, BMGT 498G, HRMN 408, or MGMT 498G.

HRMN 467 Global Human Resource Management (3)

Prerequisite: HRMN 300. Recommended: HRMN 367. A comprehensive study of global human resource management. The objective is to demonstrate intercultural competencies; identify trends in the globalized workforce; and analyze policies, practices, and functions in global human resources. Topics include global staffing, training, compensation, and evaluation.

HRMN 486A Workplace Learning in Human Resource Management (3)

Prerequisites: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

HRMN 486B Workplace Learning in Human Resource Management (6)

Prerequisites: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

HRMN 495 Contemporary Issues in Human Resource Management Practice (3)

(Intended as a final, capstone course to be taken in a student's last 15 credits). Prerequisite: HRMN 400. A study of human resource management that integrates knowledge gained through previous coursework and experience and builds on that concep-

tual foundation through integrative analysis, practical application, and critical thinking. The goal is to consider and analyze emerging issues in human resource management. Students may receive credit for only one of the following courses: BMGT 388K, HRMN 494, or HRMN 495.

Information Systems Management

IFSM 201 Concepts and Applications of Information Technology (3)

(Access to a standard office productivity package, i.e., word processing, spreadsheet, database, and presentation software, required.) An introduction to data and the range of technologies (including hardware, software, databases, and networking and information systems) that provide the foundation for the data-centric focus of modern organizations. The objective is to apply knowledge of basic technical, ethical, and security considerations to select and use information technology (and the data that arises from technology) effectively in one's personal and professional lives. Discussion covers issues related to technology as a vehicle for collecting, storing, and sharing data and information, including privacy, ethics, security, and social impact. Applied exercises focus on the manipulation, analysis, and visualization of data and effective data communication strategies. Students may receive credit for only one of the following courses: BMGT 301, CAPP 101, CAPP 300, CMST 300, IFSM 201, or TMGT 201.

IFSM 300 Information Systems in Organizations (3)

Prerequisite: WRTG 112 or equivalent. Recommended: IFSM 201 (or another computing course appropriate to the academic major) and WRTG 293. An overview of information systems and how they provide value by supporting organizational objectives. The goal is to analyze business strategies to recognize how technology solutions enable strategic outcomes and to identify information system requirements by analyzing business processes. Discussion covers concepts of business processes and alignment of information systems solutions to strategic goals.

IFSM 301 Foundations of Information Systems Management (3)

Prerequisite: IFSM 300. An overview of information technology management and governance. The goal is to be familiar with IT organizations, management of IT strategy, and factors in IT decision making. Topics include strategic alignment, portfolio management, risk management, business continuity, compliance, and organizational relationships.

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IFSM 304 Ethics in Information Technology (3)

Recommended: IFSM 201. A comprehensive study of ethics and personal and organizational ethical decision making in the use of information systems in a global environment. The aim is to identify ethical issues raised by existing and emerging technologies, apply a structured framework to analyze risk and decision alternatives, and understand the impact of personal ethics and organizational values on an ethical workplace.

IFSM 305 Information Systems in Healthcare Organizations (3)

An overview of how information systems provide value by supporting organizational objectives in the healthcare sector. The goal is to evaluate how technology solutions support organizational strategy in the healthcare environment and improve quality of care, safety, and financial management. Topics include the flow of data among disparate health information systems and the ethical, legal, and regulatory policy implications.

IFSM 310 Software and Hardware Infrastructure Concepts (3)

Prerequisite: IFSM 301. A study of the hardware, software, and network components of computer systems and their interrelationships. The objective is to select appropriate components for organizational infrastructures. Discussion covers the application of system development life-cycle methodology to build secure integrated systems that meet business requirements. Students may receive credit for only one of the following courses: CMIS 270, CMIS 310, CMSC 311, or IFSM 310.

IFSM 311 Enterprise Architecture (3)

Prerequisite: IFSM 310. A study of enterprise architecture and frameworks, including the transition of current business processes and functional systems to an enterprise solution. The aim is to analyze how enterprise architecture and resulting enterprise systems support an organization's ability to adapt and respond to a continually changing business and competitive environment.

IFSM 330 Business Intelligence and Data Analytics (3)

Prerequisite: CMIS 102 or prior programming experience. A hands-on, project-based introduction to databases, business intelligence, and data analytics. The aim is to design secure industry-standard databases and utilize business intelligence and data analytics techniques and technologies to support decision making. Topics include data and relational databases, SQL queries, business intelligence tools and alignment with business strategy, data analytics, and visualization techniques.

IFSM 370 Telecommunications in Information Systems (3)

(Formerly CSIA 302.) Prerequisite: CSIA 301 or IFSM 300. An introduction to telecommunication infrastructure. The goal is to plan, analyze, and design a secure telecommunication infrastructure that meets business needs and protects information assets. Topics include cybersecurity, data communication protocols and standards, networks, and trends in telecommunications. Students may receive credit for only one of the following courses: CMIS 370, CMSC 370, CSIA 302, IFSM 370, or IFSM 450.

IFSM 432 Business Continuity Planning (3)

Prerequisite: IFSM 311. An analysis of the requirements for business continuity and disaster recovery planning related to mission-critical business information systems. The goal is to assess the risk to continuity of business processes, develop a business continuity/disaster recovery plan according to industry standards and best practices, and develop a test plan. Topics include risk assessment and organizational requirements for maintaining systems. A group project is designed to produce and validate a comprehensive business continuity and disaster recovery plan. Students may receive credit for only one of the following courses: IFSM 432 or IFSM 498N.

IFSM 438 Information Systems Project Management (3)

Prerequisite: IFSM 300 or CSIA 350. A practical application of project management principles and procedures. The objective is to manage and control IT projects in alignment with organizational strategic goals and within resource constraints and to manage high-performing project teams to implement IT solutions. Topics include the development, control, and execution of plans to manage information systems projects as part of a team and the use of Microsoft Project to develop project schedules and related components. Students may receive credit for only one of the following courses: IFSM 438 or TMGT 430.

IFSM 441 Agile Project Management (3)

Prerequisite: IFSM 438. An advanced study of agile project management methods for software development. The objective is to apply agile practices to better manage projects characterized by complexity and uncertainty with responsiveness and adaptability and to consider alternative approaches to managing projects by matching the approach to the characteristics of a project. Topics include estimation techniques; the scrum (software development) process, i.e., inspect, adapt, and improve; and dealing with organizational impediments to adoption.

IFSM 461 Systems Analysis and Design (3)

Prerequisites: IFSM 311 and either IFSM 330 or CMIS 320. A project-driven study of tools and techniques for translating business requirements into operational systems. The goal is to plan, build, and maintain systems that meet organizational

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strategic goals by applying enterprise architecture and enterprise governance principles and practices. Topics include processes and system development life-cycle methodologies, data modeling methods, and the importance of stakeholder involvement. Students may receive credit for only one of the following courses: IFSM 436, IFSM 460, or IFSM 461.

IFSM 486A Workplace Learning in Information Systems Management (3)

Prerequisites: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

IFSM 486B Workplace Learning in Information Systems Management (6)

Prerequisites: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

IFSM 495 Trends and Practical Applications in Information Systems Management (3)

(Intended as a capstone course to be taken in a student's last 6 credits of major coursework.) Prerequisites: IFSM 438 and IFSM 461. A practical application of the knowledge and experience gained from previous study in information systems management. The aim is to demonstrate a mastery of information systems and management concepts. Emerging issues and trends in information systems management are considered.

Japanese

JAPN 111 Elementary Japanese I (3)

(Not open to native speakers of Japanese; assumes no prior knowledge of Japanese. Students with prior experience with the Japanese language should take a placement test to assess appropriate level.) An introduction to spoken and written Japanese language. The objective is to communicate in Japanese in some concrete, real-life situations using culturally appropriate language; read and write hiragana; and read some katakana words in context.

JAPN 112 Elementary Japanese II (3)

(Not open to native speakers of Japanese.) Prerequisite: JAPN 111 or appropriate score on a placement test. A continued introduction to spoken and written Japanese. The goal is to communicate in Japanese in concrete, real-life situations using culturally

appropriate language; read and write katakana; and recognize some kanji characters in context. Practice is provided in improving pronunciation and developing the oral and written skills used in everyday communication.

JAPN 114 Elementary Japanese III (3)

(Not open to native speakers of Japanese.) Prerequisite: JAPN 112 or appropriate score on a placement test. Further study of spoken and written Japanese. The aim is to communicate in Japanese in a variety of concrete, real-life situations using culturally appropriate language and to expand recognition of kanji characters in context. Practice is provided in improving pronunciation and developing the oral and written skills used in everyday communication.

JAPN 115 Elementary Japanese IV (3)

(Not open to native speakers of Japanese.) Prerequisite: JAPN 114 or appropriate score on a placement test. Further development of skills in elementary spoken and written Japanese. The aim is to interact effectively with native speakers of Japanese in a variety of real-life situations using culturally appropriate language and to recognize and distinguish more commonly used kanji characters in context. Practice is provided in fine-tuning pronunciation and applying language skills to a range of contexts.

JAPN 221 Intermediate Japanese I (3)

(Not open to native speakers of Japanese.) Prerequisite: JAPN 115 or appropriate score on a placement test. Development of skills in intermediate spoken and written Japanese. The aim is to interact effectively with native speakers of Japanese in a range of personal and professional situations and to recognize and read approximately 275 Japanese characters in context. Focus is on using culturally appropriate language in a variety of contexts.

JAPN 222 Intermediate Japanese II (3)

(Not open to native speakers of Japanese.) Prerequisite: JAPN 221 or appropriate score on a placement test. Further development of skills in intermediate spoken and written Japanese. The aim is to communicate effectively with native speakers of Japanese in a broad range of personal and professional situations and to recognize and read approximately 320 Japanese characters in context. Practice is provided in interacting with others in a variety of interpersonal contexts.

JAPN 333 Japanese Society and Culture (3)

(Formerly ASTD 333. Fulfills the general education requirement in the arts and humanities. Conducted in English.) A study of the origin and historical background of contemporary Japanese society and culture. Students may receive credit for only one of the following courses: ASTD 333 or JAPN 333.

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Journalism

JOUR 201 Introduction to News Writing (3)

(Fulfills the general education requirement in communications.) Prerequisite: WRTG 112 or equivalent. An introduction to writing news articles for print and electronic media. The aim is to evaluate the newsworthiness of information and events and write in journalistic style. Emphasis is on writing, from mechanics (grammar, spelling, punctuation, and journalistic style) to content (accuracy, completeness, audience, and readability) and reporting.

JOUR 330 Public Relations Theory (3)

Prerequisite: JOUR 201. A study of the evolution, scope, and contemporary practice of public relations and its strategic value in business, nonprofits, government, associations, and other organizations. The goal is to apply legal, ethical, and professional standards to the everyday practice of public relations. Topics include communication theory, social science, and audience dimensions as they are applied to a four-step process: research, planning, communication, and evaluation.

JOUR 486A Workplace Learning in Journalism (3)

Prerequisites: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

JOUR 486B Workplace Learning in Journalism (6)

Prerequisites: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

Korean

KORN 333 Korean Society and Culture (3)

(Formerly ASTD 353. Fulfills the general education requirement in the arts and humanities. Conducted in English.) Recommended: Any writing course and either ASTD 284 or ASTD 285. An interdisciplinary study of contemporary Korea from a variety of socio-historical and cultural perspectives. Topics include the Korean diaspora, the Korean Wave (Hallyu), Korea as a conduit between China and Japan, social and religious practices, Korean women, the Japanese occupation, and Korea's global impact. The aim is to articulate the key historic developments that have shaped contemporary Korean society, recognize and distinguish unique Korean

influences and contributions, and assess key aspects of traditional and contemporary Korean society and culture. Focus is on developing a stronger understanding of Korean society and culture for practical and professional application. Students may receive credit for only one of the following courses: ASTD 353 or KORN 333.

Legal Studies

LGST 101 Introduction to Law (3)

A survey of the U.S. legal system and the roles and responsibilities of the various personnel who work in that environment. The objective is to evaluate situations and make recommendations for action based on an understanding of law, legal institutions, and court procedures. Topics include the organization and powers of federal and state lawmaking institutions, court procedures, legal analysis, and careers in the legal environment. Students may receive credit for only one of the following courses: LGST 101 or PLGL 101.

LGST 200 Techniques of Legal Research (3)

An introduction to common research methods used to locate primary and secondary authority relevant to given topics and issues. The goal is to find valid, relevant, mandatory primary authority. Topics include the analysis, publication, and citation of judicial opinions and statutory law; the features and use of secondary sources; and various computer-assisted research tools to find and validate primary authority. Students may receive credit for only one of the following courses: LGST 200 or PLGL 200.

LGST 201 Legal Writing (3)

Prerequisite: LGST 200. An introduction to the principles of writing clearly and effectively in the legal environment. The objective is to draft writings that synthesize law, analyze legal issues, and explain law and legal analysis to a nonlegal audience. Assignments include a legal synthesis memo, case law and statutory analysis memos, and a client letter. Students may receive credit for only one of the following courses: LGST 201 or PLGL 201.

LGST 204 Legal Ethics (3)

A survey of basic principles relating to the ethical practice of law. The objective is to identify ethical problems, draft writings that apply ethical rules and interpretations to legal ethical dilemmas, and avoid and resolve legal ethical problems through appropriate use of office procedures. Rules and guidelines governing the ethical conduct of lawyers and nonlawyers are covered, as are law office management principles relevant to ethical requirements. Students may receive credit for only one of the following courses: LGST 204 or PLGL 204.

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LGST 300 Advanced Legal Research and Analysis (3)

Prerequisite: LGST 200. An in-depth examination of research methods to identify primary authority relevant to legal issues. The goal is to identify legal issues, implement research strategies to find relevant primary authority, and use this authority to analyze the issues. Topics include the use of computer-assisted legal research systems to locate case law, statutory law, administrative law, and rules of procedure and evidence and methods to identify and analyze legal issues. Students may receive credit for only one of the following courses: LGST 400 or PLGL 400.

LGST 301 Advanced Legal Writing (3)

Prerequisite: LGST 201. A focused study of the principles and techniques for drafting legal advocacy writings. The objective is to analyze legal issues and advocate for results based on that analysis. Assignments include a complex office memorandum, a demand letter, and an external advocacy memorandum. Students may receive credit for only one of the following courses: LGST 301, LGST 401, or PLGL 401.

LGST 312 Torts (3)

Prerequisite: LGST 201. A study of the causes of action, defenses, and remedies in the major categories of tort law, as well as tort-litigation procedures and writings. The goal is to investigate and evaluate tort claims in order to develop litigation strategies and to research law in order to draft legal writings that support a legal conclusion. Topics include intentional torts, negligence, strict liability, damages, and civil procedure. Students may receive credit for only one of the following courses: LGST 312 or PLGL 312.

LGST 314 Workers' Compensation Law (1)

A thorough study of the Maryland Workers' Compensation Act and the practice of workers' compensation law in Maryland. The goal is to apply knowledge of legal systems, concepts, and methodologies to support client objectives efficiently and ethically. Topics include employer/employee relationships, injuries, defenses, compensation benefits, vocational rehabilitation, and appeals. Assignments include legal and factual research and the composition of legal documents or completion of forms. Students may receive credit for only one of the following courses: LGST 314 or PLGL 398H.

LGST 315 Domestic Relations (3)

Prerequisite: LGST 201. A study of the processes, procedures, and writings of family law practice. The aim is to identify, analyze, and apply the rules of professional conduct to domestic issues; research applicable law and factual information related to domestic relations issues and draft legal writings; and complete standardized forms to resolve domestic issues. Topics include divorce, separation, and annulment and alimony; child custody and visitation; child support; disposition of property; and the legal

rights of children. Relevant aspects of civil procedures, enforcement, and the modification of orders and agreements are covered. Students may receive credit for only one of the following courses: FMCD 487, LGST 315, or PLGL 315.

LGST 316 Estates and Probate (3)

Prerequisite: LGST 201. A fundamental study of the legal concepts required to draft and prepare simple wills and administer estates. The goal is to construct an estate plan supporting the creation and administration of a simple estate. 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 that reflect the processes and procedures required by law. Students may receive credit for only one of the following courses: LGST 316, PLGL 216, or PLGL 316.

LGST 320 Criminal Law and Procedures (3)

Prerequisite: LGST 201. A study of the substantive and procedural aspects of the criminal justice system. The objective is to identify, analyze, and apply the rules of professional conduct to develop ethical strategies, research law, and draft legal writings to support the prosecution or defense of crimes. Topics include crimes and defenses, penalties, and court procedures. Students may receive credit for only one of the following courses: LGST 320 or PLGL 320.

LGST 325 Litigation (3)

Prerequisite: LGST 201. A comprehensive study of the Federal Rules of Civil Procedure and the process of civil litigation. The aim is to use technology and administrative best practices to collect, track, retrieve, and prepare evidence during the litigation process; interpret and apply the rules to develop case strategies; and interact with individuals within the legal system to effectively and ethically support the litigation process. Students may receive credit for only one of the following courses: LGST 325 or PLGL 325.

LGST 330 Administrative Law (3)

Prerequisite: LGST 201. An overview of the functions and procedures of federal and state administrative agencies. The goal is to monitor and analyze administrative agency actions in order to make recommendations to proposed and final agency rules and administrative decisions. Topics include rulemaking, adjudication, the use and control of agency discretion, and disclosure of information. Focus is on researching relevant law and writing effective and persuasive communications for use in administrative adjudications or to obtain information held by government agencies. Students may receive credit for only one of the following courses: LGST 330 or PLGL 330.

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LGST 340 Contract Law (3)

Prerequisite: LGST 201. A comprehensive study of the major areas of contract law. The objective is to identify and analyze contractual precedent and statutory authority; develop litigation strategies; and explain contract concepts, remedies, and procedures that support a legal conclusion. Topics include formation, interpretation and enforcement, discharge, breach, and remedies for breach. Students may receive credit for only one of the following courses: LGST 340 or PLGL 340.

LGST 486A Workplace Learning in Legal Studies (3)

Prerequisites: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

LGST 486B Workplace Learning in Legal Studies (6)

Prerequisites: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

LGST 495 Advanced Legal Practices (3)

(Intended as a capstone course, to be taken in a student's last 9 credits of coursework for the major.) Prerequisite: LGST 301. A portfolio-driven study of professional practices in the legal field. The goal is to integrate the competencies gained through previous coursework and experience. Assignments include projects relevant to work in the legal environment.

Library Skills and Information Literacy

LIBS 150 Introduction to Research (1)

An introduction to the research process and methods for retrieving information in a library or through online sources. The aim is to identify an information need and locate, evaluate, and use appropriate resources in keeping with academic integrity and ethical standards. Focus is on implementing effective strategies for finding relevant information—including selecting appropriate print and electronic sources and effectively using web search engines and the UMGC Library's electronic resources to find information—and evaluating and correctly citing the information found. Students may not earn credit for LIBS 150 through challenge exam or portfolio credit and may receive credit for only one of the following courses: COMP 111, LIBS 100, or LIBS 150.

Marketing

MRKT 310 Marketing Principles (3)

(Not open to students who have completed MRKT 311. Not applicable to the certificate in Digital Marketing.) A foundation in the principles of marketing used to manage profitable customer relationships. The objective is to understand the pivotal role of marketing within both an organization's strategic plan and the marketing process and determine marketing strategies and tactics. Topics include consumer behavior, competitive analysis, segmentation, target marketing, positioning, branding, new product development, pricing, value chains, and marketing communications. Students may receive credit for only one of the following courses: BMGT 350, MGMT 322, MRKT 310, or TMGT 322.

MRKT 311 Digital Marketing Principles (3)

An introduction to the various types of digital marketing and the skills needed for each type. The aim is to understand the various stages in the customer journey and marketing funnel. Discussion covers developing a unique value proposition and assessing the contribution of a SWOT (strengths, weaknesses, opportunities, threats) analysis to a marketing plan. Projects involve the application of key metrics and key performance indicators (KPIs) commonly used in digital marketing and culminate in the presentation of a digital marketing plan.

MRKT 314 Nonprofit Marketing (3)

Prerequisite: MRKT 310. An overview of the key issues of marketing in a nonprofit organization. The aim is to develop marketing plans that maximize exchange relationships with multiple stakeholders. Topics include the application of marketing-mix principles. Projects include researching and writing a grant proposal. Students may receive credit for only one of the following courses: BMGT 398B or MRKT 314.

MRKT 354 Integrated Marketing Communications (3)

(Not open to students who have completed MRKT 355. Not applicable to the certificate in Digital Marketing.) Prerequisite: MRKT 310. A project-driven study of the integration of marketing communication tools used to achieve customer-centered marketing communications objectives. The goal is to develop and evaluate an integrated marketing communications plan and manage the marketing communications function. Topics include advertising, direct marketing, public relations, sales promotion, interactive and social media, buzz marketing, and personal selling. Students may receive credit for only one of the following courses: BMGT 354 or MRKT 354.

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MRKT 355 Integrated Marketing Communications in Digital Media (3)

Prerequisite: MRKT 311. An examination of how to leverage various digital media tools to achieve customer-centric marketing communication objectives. Focus is on using search-and-display marketing as an effective aspect of an integrated marketing communication strategy. Discussion covers how to develop advertising campaigns on paid ad platforms and using keywords to promote digital content in online searches.

MRKT 356 Email Marketing (3)

Prerequisite: MRKT 311. An introduction to various aspects of an effective email marketing campaign using segmentation, personalization, automation, and data analysis strategies. Topics include techniques to incorporate triggers in automated campaigns and generate Mailchimp email campaign reports. A final project entails presentation of a plan to execute an effective email campaign.

MRKT 394 Manage Customer Relationships in Digital Marketing (3)

Prerequisite: MRKT 311. The analysis of digital marketing strategies in order to promote and retain customer relationships. Topics include identifying potential customers and analyzing data to improve the results of marketing campaigns. Hands-on experience in using Google Analytics and conducting A/B tests is provided through course projects. Data visualization techniques are used to gain better insights into customer experience.

MRKT 395 Managing Customer Relationships (3)

(Not open to students who have completed MRKT 394. Not applicable to the certificate in Digital Marketing.) Prerequisite: MRKT 310. A comprehensive study of marketing strategies focused on identifying profitable customers, retaining those customers, and growing their lifetime value. The aim is to identify and differentiate individual customers and customer groups, use data to determine customer interactions, and determine how to provide customization within a mass customization environment. Topics include data mining to identify individual customers, determining loyalty segments of customers, assessing the lifetime revenue value of customers, understanding customer behavior, developing programs to change customer behavior, and designing customer loyalty and customer service programs and policies. Discussion also covers various customer relationship management (CRM) technology-related tools and metrics to support management's assessment of customer relationship management efforts. Students may receive credit for only one of the following courses: BMGT 395, BMGT 398A, MGMT 395, MGMT 398A, or MRKT 395.

MRKT 410 Consumer Behavior (3)

(Not open to students who have completed MRKT 411. Not applicable to the certificate in Digital Marketing.) Prerequisite: MRKT 310. A study of the increasing importance of understanding consumers in the marketing system. The objective is to assess internal, external, and situational factors in developing marketing strategies; apply internal factors to market segmentation; and formulate marketing-mix strategies. Discussion covers the foundations of consumer behavior (such as economic, social, psychological, and cultural factors) and the influence of well-directed communications. 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. Students may receive credit for only one of the following courses: BMGT 451, CNEC 437, or MRKT 410.

MRKT 411 Consumer Behavior in Digital Media (3)

Prerequisite: MRKT 311. A study of consumer motivation and consumer behavior in a digital environment. The aim is to synthesize consumer research in order to develop insights into the target audience. Topics include branding, content development, and channel management strategy and their contribution to the consumer experience. Discussion also covers effective blog writing and developing optimum visual designs to influence consumer behavior.

MRKT 412 Marketing Research (3)

Prerequisites: STAT 200 and MRKT 310. A study of the specialized field of marketing research as it is used to identify market needs, profile target markets, test promotional efforts, and measure the effectiveness of marketing plans. The goal is to assess marketing research needs, design and implement a marketing research plan, and use results to formulate marketing strategies. Discussion covers procedures for planning survey projects, designing statistical samples, tabulating data, and preparing reports. Emphasis is on managing the marketing research function. Students may receive credit for only one of the following courses: BMGT 452 or MRKT 412.

MRKT 454 Global Marketing (3)

Prerequisite: MRKT 310. An in-depth study of marketing principles as they relate to the global marketplace. The aim is to apply marketing principles and strategies to a global organization and markets. Discussion covers the influence of internationalization on the U.S. economy, the competitive pressures on the intensifying global markets, and the development of marketing plans tailored to reach international and global markets. Topics also 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.

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MRKT 457 Digital Marketing (3)

(Not open to students who have completed MRKT 458. Not applicable to the certificate in Digital Marketing.) Prerequisite: MRKT 310. An exploration of how the use of information technology can enhance the marketing process and create relationships with customers. The objective is to incorporate consumer expectations into a digital marketing plan, evaluate digital marketing delivery options, analyze effective website design, evaluate competitive digital marketing strategies, and explore the ethical and legal issues created by the new technology. Topics include the use of the internet in developing marketing strategy, conducting market research, and making marketing-mix decisions. Students may receive credit for only one of the following courses: BMGT 398O, BMGT 398R, MGMT 398O, MGMT 398R, MRKT 457.

MRKT 458 Social Media Marketing (3)

Prerequisite: MRKT 311. A study of the effective use of social media tools and network to market product and services. The objective is to develop an optimal social media strategy that simulates a digital ad campaign. Topics include techniques to plan and create digital content. Project assignments involve creating ads in Facebook using Facebook's Ads Manager tools. Discussion also covers reporting and analyzing online advertisements and managing social media communities.

MRKT 486A Workplace Learning in Marketing (3)

Prerequisites: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

MRKT 486B Workplace Learning in Marketing (6)

Prerequisites: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

MRKT 495 Strategic Marketing Management (3)

(Intended as a final, capstone course to be taken in a student's last 15 credits.) Prerequisites: MRKT 354, MRKT 410, and MRKT 412. A study of marketing that integrates knowledge gained through previous coursework and experience in marketing and builds on those concepts through integrative analysis, practical application, and critical thinking. The aim is to manage the marketing process, perform root cause analysis, formulate alternative solutions, and propose marketing strategies and tactics. Emphasis is on the use of appropriate decision models. Topics include the analysis of consumers and markets. Discussion also covers emerging issues. Students may receive credit for only one of the following courses: BMGT 457 or MRKT 495.

Mathematics

MATH 105 Topics for Mathematical Literacy (3)

(For students who do not need a college algebra, statistics, or higher-level mathematics course. Meets the general education requirement in mathematics.) An investigation of contemporary topics in mathematics. The aim is to apply mathematical processes to solve problems involving exponential and logarithmic modeling, personal finance, probability, basic logical thinking, and statistical reasoning.

MATH 107 College Algebra (3)

(The first course in the two-course series MATH 107–MATH 108. An alternative to MATH 115.) An introduction to equations and inequalities and a study of functions and their properties, including the development of graphing skills with polynomial, rational, exponential, and logarithmic functions. The objective is to apply appropriate technology and demonstrate fluency in the language of algebra; communicate mathematical ideas; perform operations on real numbers, complex numbers, and functions; solve equations and inequalities; analyze and graph circles and functions; and use mathematical modeling to translate, solve, and interpret applied problems. Technology is used for data modeling. Discussion also covers applications. 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 MATH 107–MATH 108. An alternative to MATH 115.) Prerequisite: MATH 107. An introduction to trigonometric functions, identities, and equations and their applications. The goal is to demonstrate fluency in the language of trigonometry, analytic geometry, and selected mathematical topics; communicate mathematical ideas appropriately; apply and prove trigonometric identities; solve triangles and trigonometric equations; and perform vector operations. Discussion covers analytical geometry and conic sections, systems of linear equations, matrices, sequences, and series. Students may receive credit for only one of the following courses: MATH 108 or MATH 115.

MATH 115 Pre-Calculus (3)

(Not open to students who have completed MATH 140 or any course for which MATH 140 is a prerequisite.) An explication of equations, functions, and graphs. The goal is to demonstrate fluency in pre-calculus; communicate mathematical ideas appropriately; solve equations and inequalities; analyze and graph functions; and use mathematical modeling to translate, solve, and interpret applied problems. Topics include polynomials, rational functions, exponential and logarithmic functions, trigonometry, and analytical geometry. Students may receive credit for only one of the following courses: MATH 107, MATH 108, or MATH 115.

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MATH 140 Calculus I (4)

Prerequisite: MATH 108 or MATH 115. An introduction to calculus. The goal is to demonstrate fluency in the language of calculus; discuss mathematical ideas appropriately; and solve problems by identifying, representing, and modeling functional relationships. 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 130, MATH 131, or MATH 140.

MATH 141 Calculus II (4)

(A continuation of MATH 140.) Prerequisite: MATH 140. A study of integration and functions. The aim is to demonstrate fluency in the language of calculus; discuss mathematical ideas appropriately; model and solve problems using integrals and interpret the results; and use infinite series to approximate functions to model real-world scenarios. 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: MATH 131, MATH 132, or MATH 141.

MATH 241 Calculus III (4)

Prerequisite: MATH 141. An introduction to multivariable calculus. Exposition covers vectors and vector-valued 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. The objective is to use multivariate calculus to solve real-world problems.

MATH 246 Differential Equations (3)

Prerequisite: MATH 141 or MATH 132. An introduction to the basic methods of solving differential equations. The goal is to demonstrate fluency in the language of differential equations; communicate mathematical ideas; solve boundary-value problems for first- and second-order equations; and solve systems of linear differential equations. Topics include solutions of boundary-value problems for first- and second-order differential equations; solutions of systems of linear differential equations; series solutions, existence, and uniqueness; and formulation and solution of differential equations for physical systems.

MATH 301 Concepts of Real Analysis I (3)

Prerequisite: MATH 141. A study of real analysis. The aim is to construct formal mathematical proofs and solve problems. Topics 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. Students may receive credit for only one of the following courses: MATH 301 or MATH 410.

MATH 340 Linear Algebra (4)

Prerequisite: MATH 140. An examination of linear algebra. The aim is to demonstrate applications of various concepts in linear algebra. Topics include abstract vector spaces, linear transformations, algebra of matrices, determinants, similarity, eigenvalues and eigenvectors, and applications to systems of equations. Discussion also covers solutions of problems in physics, engineering, and the sciences. Students may receive credit for only one of the following courses: MATH 240, MATH 340, MATH 400, or MATH 461.

MATH 402 Algebraic Structures (3)

Prerequisite: MATH 141. An overview of algebraic structures. The aim is to construct mathematically correct and concise proofs. Set theory, techniques of proofs, and the application of those techniques are introduced. Topics include groups, subgroups, isomorphisms, rings, integral domains, and fields.

MATH 463 Complex Analysis (3)

Prerequisite: MATH 141. An overview of the theory and practice of complex variables to enrich the study of differential equations, real analysis, and numerical analysis. The aim is to use complex variables to analyze problems that have direct application to physical problems. Topics include complex numbers, functions, inverse functions, mappings, integrals, series, and poles in the complex numbers.

Music

MUSC 210 Music as Cultural Expression (3)

A study of the role of music in various cultures. The objective is to identify key features that define various genres of world music, articulate the roles and functions of music in world cultures, use the medium of music to explore intercultural relationships, and consciously define personal musical perspectives. Discussion covers music from various cultural traditions and the contexts in which composers and musicians practice their craft. Students may receive credit for only one of the following courses: HUMN 211 or MUSC 210.

Natural Science

NSCI 100 Introduction to Physical Science (3)

Prerequisite: MATH 105, STAT 200, or a higher MATH or STAT course. An introduction to the basic principles of physics and chemistry, with applications to geology, oceanography, meteorology, and astronomy. The objective is to use scientific and quantitative reasoning to make informed decisions about topics related to physical science. Discussion covers the development of scientific

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thinking, the scientific method, the relationships among the various physical sciences, the role of the physical sciences in interpreting the natural world, and the integrated use of technology. Students may receive credit for only one of the following courses: GNSC 100, NSCI 100, or NSCI 103.

NSCI 101 Physical Science Laboratory (1)

(Fulfills the laboratory science requirement.) Prerequisite: MATH 105, STAT 200, or a higher MATH or STAT course. Prerequisite or corequisite: NSCI 100. A laboratory study of the basic principles of physics and chemistry, with applications to geology, oceanography, meteorology, and astronomy. The objective is to apply the scientific method and use scientific and quantitative reasoning to make informed decisions about experimental results in the physical sciences. Discussion and laboratory activities cover the development of scientific thinking, the scientific method, the relationships among the various physical sciences, and the role of the physical sciences in interpreting the natural world.

NSCI 103 Fundamentals of Physical Science (4)

(Fulfills the laboratory science requirement.) Prerequisite: MATH 105, STAT 200, or a higher MATH or STAT course. An introduction to the basic principles of physics and chemistry, with applications to geology, oceanography, meteorology, and astronomy. The objective is to apply the scientific method and use scientific and quantitative reasoning to make informed decisions about experimental results in the physical sciences. Discussion and laboratory activities cover the development of scientific thinking, the scientific method, the relationships among the various physical sciences, the role of the physical sciences in interpreting the natural world, and the integrated use of technology. Students may receive credit for only one of the following courses: GNSC 100, NSCI 100, or NSCI 103.

NSCI 120 Natural Sciences Laboratory (1)

(Fulfills the laboratory science requirement.) Prerequisite: MATH 105, STAT 200, or a higher MATH or STAT course. A study of the basic principles of science investigation and observation. The objective is to apply knowledge of the natural world and experimental design to address questions about physical, chemical, geological, and ecological phenomena. Activities include observation of the natural world, experiments, measurements, data collection, and quantitative reasoning exercises.

NSCI 170 Weather and Climate (3)

An introduction to the basic principles of atmospheric science. The goal is to use scientific and quantitative reasoning to make informed decisions about topics related to atmospheric science. Topics include the effect of different weather elements (such as temperature, pressure, winds, and humidity) on weather patterns

and climate. Discussion also covers weather phenomena such as El Niño, thunderstorms, tornadoes, tropical cyclones, and midlatitude cyclones, as well as the impact of humans on Earth's atmosphere. Students may receive credit for only one of the following courses: GNSC 170, GNSC 398D, or NSCI 170.

NSCI 171 Weather and Climate Laboratory (1)

(Fulfills the laboratory science requirement.) Prerequisite or corequisite: NSCI 170. An introduction to the basic concepts of meteorology. The aim is to apply the scientific method and use scientific and quantitative reasoning to make informed decisions about experimental results in meteorology. Focus is on the observation, measurement, and analysis of weather data, including the interpretation of weather patterns and conditions found on weather maps, satellite images, radar imagery, and atmosphere diagrams. Students may receive credit for only one of the following courses: GNSC 171 or NSCI 171.

NSCI 301 Laboratory Management and Safety (3)

Recommended: WRTG 112, WRTG 101, or WRTG 101S. An overview of the role of scientific methodology, data handling, and management practices in research and manufacturing laboratories. The aim is to examine scientific principles; research and development practices; safety and health compliance; and management of laboratory personnel, space, inventory, and equipment. Assignments address laboratory operating systems, finances and recordkeeping, safety regulations and procedures, data management, project planning, problem solving, procurement, personnel training, and communication with a broad array of stakeholders. Students may receive credit for only one of the following courses: GNSC 301, MEDT 301, or NSCI 301.

NSCI 362 Our Environment: Human Impact and Sustainable Choices (3)

A scientific examination of the impact humans have had on the global environment in the current era, the Anthropocene. The goal is to apply scientific reasoning to evaluate human impact on the environment and strategies to mitigate this impact. Topics address sustainability as it relates to individual choices, collective responsibility, environmental stewardship, energy use, diet, and consumer behavior. Current scientific research is used to explore environmental issues such as population growth, climate change, resource depletion, biodiversity losses, food security, and the economic implications of making sustainable choices. Students may receive credit for only one of the following courses: BEHS 361, BEHS 365, ENMT 365, GNSC 361, HUMN 360, NSCI 361, or NSCI 362.

NSCI 398 Special Topics in Natural Science (3)

A study of topics in the sciences of special interest to students and faculty.

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Nursing

NURS 300 Science and Research in Nursing (3)

(Open only to students majoring in nursing for registered nurses.) An overview of the basic concepts of nursing research. The aim is to understand the contribution of research to nursing knowledge and practice, demonstrate skill in conducting research using available scientific literature, critically appraise current evidence-based research, and apply the findings to promote clinical best practices in nursing. Evidence-based research is evaluated from a legal and ethical perspective in the protection of human subjects. Topics include scientific process, research methods, experimental protocols, informed consent, evaluation of research literature, and ethical issues in research.

NURS 350 Global Health Issues (3)

(Open only to students majoring in nursing for registered nurses.) Prerequisite: NURS 300. An overview of global health issues and strategies that promote the health of nations. Global perspectives on health issues and policies are explored. The aim is to understand how disparities in health and access to healthcare can influence the burden of disease. Discussion covers the global burden of disease, determinants of health, and other factors that affect the health of countries. Topics also include nutrition, maternal and child health, mental health, environmental health, communicable and noncommunicable diseases, and disaster/emergency preparedness and response.

NURS 362 Health Assessment for Registered Nurses (4)

(Open only to students majoring in nursing for registered nurses.) Prerequisite: NURS 300. An overview of the role of the professional nurse in performing comprehensive health assessments. The aim is to conduct comprehensive and holistic health assessments, recognize health deviations, formulate thorough individualized plans of care, and anticipate treatment outcomes. Focus is on demonstrating appropriate communication and interprofessional collaboration skills in promoting patient-centered care. Topics include diversity, special populations, care across the lifespan, recognizing deviations in health, health promotion, and disease prevention. Students may receive credit for only one of the following courses: NURS 360 or NURS 362.

NURS 410 Applying Evidence-Based Practice in Nursing (3)

(Open only to students majoring in nursing for registered nurses.) Prerequisite: NURS 300. A study of the principles and models of evidence-based nursing practice. The objective is to demonstrate critical-thinking skills in applying the findings of evidence-based practice to the clinical environment. Focus is on evaluating patient outcomes data to identify clinical practice areas that are amena-

ble to quality improvement projects. Assignments include selecting a problem area of clinical practice and developing a proposal for a solution.

NURS 420 Advocacy and Politics in Nursing (3)

(Open only to students majoring in nursing for registered nurses.) Prerequisite: HMGT 372. An overview of the basic principles underlying the legislative process and an examination of how nurses can use political advocacy strategies to influence health-care policies. Focus is on applying interpersonal, communication, leadership, and advocacy skills to support the application of social justice principles in healthcare delivery practices to diverse populations and promote the nursing profession.

NURS 462 Nursing Care of the Family and Community (4)

(Open only to students majoring in nursing for registered nurses.) Prerequisite: NURS 360 or NURS 362. An overview of the role of the professional nurse in the care of the family and community. Focus is on applying the nursing process to the care of families and communities. The goal is to identify health risks within a family and design a plan of care using evidence-based practices, obtain information about family and community health systems using systematic research practices, and develop a health promotion education plan for the community. Direct patient-care practice experiences include conducting a windshield survey and communicating and collaborating with community healthcare professionals in planning and implementing health promotion activities that address a community healthcare need. Topics include diversity, the community as a patient, environmental influences, families at risk, health promotion, risk reduction, vulnerable populations, disaster preparedness, and coalition building. Students may receive credit for only one of the following courses: NURS 460 or NURS 462.

NURS 485 Leadership and Management in Professional Nursing Practice (4)

(Open only to students majoring in nursing for registered nurses. Intended as a final, capstone course to be taken in student's last 9 credits.) Prerequisite: NURS 410. A study of leadership concepts, theories, and techniques used in the nursing profession to promote high-quality patient care in a variety of settings. The aim is to integrate nursing leadership concepts and theories into the various roles of the professional nurse, promote professional development for self and others, and apply business principles in the management of patients in complex and diverse healthcare environments. Students may receive credit for only one of the following courses: NURS 485 or NURS 495.

NURS 495 Leadership and Management in Nursing (3)

(Open only to students majoring in nursing for registered nurses. Intended as a final, capstone course to be taken in the student's last 9 credits). Prerequisite: NURS 410. A study of leadership

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concepts, theories, and techniques used in the nursing profession to promote high-quality patient care in a variety of settings. The aim is to integrate nursing leadership concepts and theories into the various roles of the professional nurse, promote professional development for self and others, and apply business principles in the management of patient care in complex and diverse health-care environments. Assignments include interviewing a nurse manager/leader and developing a business proposal to address a quality care or patient safety issue. Students may receive credit for only one of the following courses: NURS 485 or NURS 495.

Nutrition

NUTR 100 Elements of Nutrition (3)

A study of the scientific and quantitative foundations of the applied science of human nutrition. The goal is to understand how nutrition reflects an integration of scientific disciplines and how foods provide important nutrients that supply substance and energy for healthy living. Topics include scientific reasoning, healthy meal planning, and weight management. Students may receive credit for only one of the following courses: NUTR 100 or NUTR 200.

NUTR 101 Nutrition Laboratory (1)

(For students not majoring in biotechnology or laboratory management. Fulfills the laboratory science requirement only with previous or concurrent credit for NUTR 100.) Prerequisite or corequisite: NUTR 100. A hands-on study of human nutrition. The goal is to use an experimental approach to questions in nutrition science. Laboratory exercises emphasize critical thinking in the analysis of quantitative data derived from investigations into various areas of nutrition science, including energy balance, macro- and micro-nutrients, food guidelines, and food safety.

Philosophy

PHIL 100 Introduction to Philosophy (3)

An introduction to the literature, problems, and methods of philosophy. The goal is to identify and consider central, recurring problems of philosophy. Emphasis is on developing awareness of the significance of philosophical problems and learning to offer rationally justifiable solutions. Students may receive credit for only one of the following courses: HUMN 125 or PHIL 100.

PHIL 110 Practical Reasoning (3)

An examination of methods for thinking analytically about real-world problems and solving them. The goal is to apply logical arguments to practical decision making. Topics include inductive and deductive reasoning; the properties of arguments; methods of

logical analysis; synthesis of ideas; informal fallacies; and the role of presuppositions and other factors in scientific, social, ethical, and political problems.

PHIL 140 Introduction to Moral Philosophy and Ethical Reasoning (3)

An introductory exploration of the foundational theories of Eastern and Western moral philosophy and an examination of methods for thinking clearly about ethical issues. The objective is to employ a knowledge of moral theory and the methods of ethical reasoning to address contemporary ethical issues and dilemmas in areas such as business, medicine, information technology, and personal ethics. Students may receive credit for only one of the following courses: HUMN 300 or PHIL 140.

PHIL 304 Contemporary Social Justice Issues (3)

Recommended: PHIL 100 and PHIL 140. A thematic exposition of social justice issues. Topics include the relationship of the individual to society, human relationships with the environment, the use of technology, medical decision making, social equalities and inequalities, and workplace issues. The objective is to improve one's awareness of ethical issues and recognize and analyze ethical problems in the contemporary global context through a deeper understanding of ethical theories.

PHIL 336 Ideas Shaping the 21st Century (3)

An overview of ideas and philosophies likely to affect humanity and this planet in the 21st century. The goal is to identify and understand predominant modes of thought; critically evaluate ideas that affect ways of living; articulate the principles underlying cooperation and dissension among different cultures, institutions, and individuals; and trace the influence of key ideas across various realms of human activity to navigate the challenges of the modern world. Students may receive credit for only one of the following courses: HUMN 336 or PHIL 336.

PHIL 348 Religions of the East (3)

An examination of the religions of the East, including Jainism, Sikhism, Hinduism, Buddhism, Chinese religions, and Shinto. The aim is to gain a historical perspective on world events and understand the interrelationships of these religious traditions, historically and doctrinally. Students may receive credit for only one of the following courses: HUMN 348, HUMN 350, or PHIL 348.

PHIL 349 Religions of the West (3)

An examination of the religions of the West, including the Zoroastrian, Judaic, Christian, and Islamic traditions. The aim is to gain a historical perspective on world events and to understand the interrelationships of these religious traditions, both historically and doctrinally. Students may receive credit for only one of the following courses: HUMN 349, HUMN 350, or PHIL 349.

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Professional Exploration

PACE 100 Professional and Career Exploration for Transfer Students (3)

(Fulfills the general education requirement in professional explorations for eligible transfer students with 45 or more credits in transfer.) A condensed orientation to UMGC and exploration of how UMGC academic programs align to professional goals and career options. Focus is on exploring ways to develop and enhance career opportunities, becoming familiar with program options, and reflecting on personal goals. Students may receive credit for only one of the following courses: PACE 100, PACE 111B, PACE 111C, PACE 111M, PACE 111P, PACE 111S, or PACE 111T.

PACE 111 Program and Career Exploration (3)

(Fulfills the general education requirement in research and computing literacy.) An orientation to UMGC and exploration of how UMGC academic programs align to professional goals and career options. Focus is on developing and practicing communication, teamwork, professionalism, and integrity skills while exploring ways to develop and enhance career opportunities. The aim is to become familiar with the university's academic culture and expectations; learn about UMGC resources for success; reflect on academic and professional goals; and explore opportunities to shorten programs through transfer credit and other prior learning. Students may receive credit for only one of the following courses: PACE 111B, PACE 111C, PACE 111M, PACE 111P, PACE 111S, or PACE 111T.

PACE 111B Program and Career Exploration in Business (3)

(Fulfills the general education requirement in research and computing literacy.) An orientation to UMGC and exploration of how UMGC academic programs align to professional goals and career options. Focus is on developing and practicing communication, teamwork, professionalism, and integrity skills while exploring ways to develop and enhance career opportunities. The aim is to become familiar with the university's academic culture and expectations; learn about UMGC resources for success; reflect on academic and professional goals; and explore opportunities to shorten programs through transfer credit and other prior learning. Students may receive credit for only one of the following courses: PACE 111B, PACE 111C, PACE 111M, PACE 111P, PACE 111S, or PACE 111T.

PACE 111C Program and Career Exploration in Communication/Humanities (3)

(Fulfills the general education requirement in research and computing literacy.) An orientation to UMGC and exploration of how UMGC academic programs align to professional goals and career options. Focus is on developing and practicing communication, teamwork, professionalism, and integrity skills while exploring ways to develop and enhance career opportunities. The aim is to become familiar with the university's academic culture and expectations; learn about UMGC resources for success; reflect on academic and professional goals; and explore opportunities to shorten programs through transfer credit and other prior learning. Students may receive credit for only one of the following courses: PACE 111B, PACE 111C, PACE 111M, PACE 111P, PACE 111S, or PACE 111T.

PACE 111M Program and Career Exploration in Multidisciplinary Studies (3)

(Fulfills the general education requirement in research and computing literacy.) An orientation to UMGC and exploration of how UMGC academic programs align to professional goals and career options. Focus is on developing and practicing communication, teamwork, professionalism, and integrity skills while exploring ways to develop and enhance career opportunities. The aim is to become familiar with the university's academic culture and expectations; learn about UMGC resources for success; reflect on academic and professional goals; and explore opportunities to shorten programs through transfer credit and other prior learning. Students may receive credit for only one of the following courses: PACE 111B, PACE 111C, PACE 111M, PACE 111P, PACE 111S, or PACE 111T.

PACE 111P Program and Career Exploration in Public Safety (3)

(Fulfills the general education requirement in research and computing literacy.) An orientation to UMGC and exploration of how UMGC academic programs align to professional goals and career options. Focus is on developing and practicing communication, teamwork, professionalism, and integrity skills while exploring ways to develop and enhance career opportunities. The aim is to become familiar with the university's academic culture and expectations; learn about UMGC resources for success; reflect on academic and professional goals; and explore opportunities to shorten programs through transfer credit and other prior learning. Students may receive credit for only one of the following courses: PACE 111B, PACE 111C, PACE 111M, PACE 111P, PACE 111S, or PACE 111T.

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PACE 111S Program and Career Exploration in Health and Sciences (3)

(Fulfills the general education requirement in research and computing literacy.) An orientation to UMGC and exploration of how UMGC academic programs align to professional goals and career options. Focus is on developing and practicing communication, teamwork, professionalism, and integrity skills while exploring ways to develop and enhance career opportunities. The aim is to become familiar with the university's academic culture and expectations; learn about UMGC resources for success; reflect on academic and professional goals; and explore opportunities to shorten programs through transfer credit and other prior learning. Students may receive credit for only one of the following courses: PACE 111B, PACE 111C, PACE 111M, PACE 111P, PACE 111S, or PACE 111T.

PACE 111T Program and Career Exploration in Technology (3)

(Fulfills the general education requirement in research and computing literacy.) An orientation to UMGC and exploration of how UMGC academic programs align to professional goals and career options. Focus is on developing and practicing communication, teamwork, professionalism, and integrity skills while exploring ways to develop and enhance career opportunities. The aim is to become familiar with the university's academic culture and expectations; learn about UMGC resources for success; reflect on academic and professional goals; and explore opportunities to shorten programs through transfer credit and other prior learning. Students may receive credit for only one of the following courses: PACE 111B, PACE 111C, PACE 111M, PACE 111P, PACE 111S, or PACE 111T.

Psychology

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. The goal is to apply major concepts and use the scientific method to enhance the understanding of individual, community, and organizational life experiences. 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: BEHS 101 or PSYC 100.

PSYC 300 Research Methods in Psychology (3)

Prerequisites: PSYC 100 and STAT 200. A survey of research methods focusing on the fundamentals of research design and behavior. The aim is to apply research methodologies critically and creatively to communicate effectively about the domains of psychology. Topics include scientific writing using APA style, evaluation of research literature, and ethical issues in research. Practice is provided in asking research questions, formulating research hypotheses, designing and conducting a simulated research study, and presenting results. Students may receive credit for only one of the following courses: PSYC 300 or PSYC 305.

PSYC 301 Biological Basis of Behavior (3)

Prerequisite: PSYC 100. Recommended: PSYC 300. An introduction to the anatomical structures and physiological processes that determine behavior. The objective is to use scientifically valid resources to communicate effectively about the biological basis of 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, and language), as well as the basic functioning of the nervous system.

PSYC 306 Special Topics in Psychology (1–3)

Seminar discussion of topics of current interest. Areas explored may extend or augment those covered in more general topical courses. May be repeated to a maximum of 6 credits when topics differ.

PSYC 307 Special Topics in Biological Psychology (1–3)

Seminar discussion of topics of current interest. Areas explored may extend or augment those covered in more general topical courses. May be repeated to a maximum of 6 credits when topics differ.

PSYC 308 Special Topics in Social Psychology (1–3)

Seminar discussion of topics of current interest. Areas explored may extend or augment those covered in more general topical courses. May be repeated to a maximum of 6 credits when topics differ.

PSYC 309 Special Topics in Professional Psychology (1–3)

Seminar discussion of topics of current interest. The goal is to attain specialized knowledge in a particular area of professional psychology. Topics may extend or augment those covered in more general courses. May be repeated to a maximum of 6 credits when topics differ.

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PSYC 310 Sensation and Perception (3)

Prerequisite: PSYC 100. Recommended: PSYC 300 and PSYC 301. A survey of theories and historical and contemporary research in how the auditory, visual, gustatory, olfactory, kinesthetic, and tactile senses acquire information and how psychological, anatomical, physiological, and environmental factors help us perceive the world. The objective is to apply an understanding of complex neural and behavioral processes to evaluate research and analyze variations within and between species.

PSYC 321 Social Psychology (3)

Prerequisite: PSYC 100. Recommended: PSYC 300. An examination of the influence of social factors on individual and interpersonal behaviors. The objective is to analyze the underlying causes of individual and group behavior and the ways in which group attitudes and behaviors are related. Topics include conformity, attitudinal change, personal perception, and group behavior. Students may receive credit for only one of the following courses: BEHS 221, BEHS 421, BEHS 450, PSYC 221, or PSYC 321.

PSYC 332 Psychology of Human Sexuality (3)

Prerequisite: PSYC 100. An examination of human sexuality and sexual behavior. The objective is to apply knowledge of the physiology and psychology of human sexuality. Topics include sexual anatomy, intimate relationships, sexual health, and sexual identity across the lifespan. Students may receive credit for only one of the following courses: BEHS 363, HLTH 377, or PSYC 332.

PSYC 335 Theories of Personality (3)

(Formerly PSYC 435.) Prerequisite: PSYC 100. Recommended: PSYC 300. A study of major theories and perspectives on personality. The goal is to explain and evaluate major concepts in personality. Topics include trait, psychodynamic, behavioral, and humanistic theories. Methods of personality research and relevant findings are also introduced. Students may receive credit for only one of the following courses: PSYC 335 or PSYC 435.

PSYC 338 Psychology of Gender (3)

Prerequisite: PSYC 100. A survey of the biology, lifespan development, socialization, personality attributes, mental health factors, and special considerations associated with gender. The aim is to apply knowledge of cultural and historical influences relating to gender. Topics include conceptions of gender, gender roles, and gender similarities and differences.

PSYC 341 Memory and Cognition (3)

Prerequisite: PSYC 100. Recommended: PSYC 300. An introduction to basic models, methods of research, and findings in the fields of memory, problem solving, and language. The objective is to apply knowledge of cognitive processes to a variety of situations, including organizational and educational settings. Both applications and theory are explored.

PSYC 351 Lifespan Development (3)

Prerequisite: PSYC 100. Recommended: PSYC 300. An integrated study of the biological, socioemotional, and cognitive development of humans from conception through death. The aim is to apply knowledge of lifespan development to interpersonal, community, and organizational relationships. Emphasis is on the interaction of nature and nurture on one's physiology, capability, and potential at each progressive stage of development.

PSYC 353 Abnormal Psychology (3)

Prerequisite: PSYC 100. Recommended: PSYC 300. An examination of mental disorders across the lifespan. The goal is to evaluate emerging issues in abnormal psychology. Topics include the identification and diagnosis of specific disorders and the evolution of treatment protocols. Students may receive credit for only one of the following courses: PSYC 331, PSYC 353, or PSYC 431.

PSYC 354 Cross-Cultural Psychology (3)

Prerequisite: PSYC 100. Recommended: PSYC 300. An examination of the interplay of individual, ethnic, and cultural factors in psychosocial growth and well-being. The aim is to apply analysis of cultural factors to make decisions, solve problems, and communicate effectively. Issues of globalization, diversity, cultural bias, and cross-ethnic communication are addressed.

PSYC 386 Psychology of Stress (3)

Prerequisite: PSYC 100. An examination of the forces that define and determine the stress response. The aim is to apply stress management techniques to remediate the negative impact of stress. Stress is studied as the product of the interactions among one's social structure, occupational status, and psychological and physiological levels of well-being. The psychological perspective is examined in relation to the stresses produced in a variety of contexts, such as families and work organizations. Students may receive credit for only one of the following courses: BEHS 463, HLTH 285, or PSYC 386.

PSYC 432 Introduction to Counseling Psychology (3)

Prerequisite: PSYC 100. Recommended: PSYC 300 and PSYC 335. A survey and critical analysis of research and intervention strategies developed and used by counseling psychologists. The goal is to evaluate current trends in content and methodology. Topics include counseling protocols in various applied settings.

PSYC 436 Introduction to Clinical Psychology (3)

Prerequisite: PSYC 100. Recommended: PSYC 300 and PSYC 353. A survey of diagnostic and therapeutic strategies employed by clinical psychologists. The objective is to evaluate current trends in content and methodology. Topics include the identification, diagnosis, and treatment of mental health disorders. Emphasis is on the scientist-practitioner model and the critical analysis of theories and empirical research.

COURSE INFORMATION

UNDERGRADUATE COURSE DESCRIPTIONS

PSYC 437 Positive Psychology (3)

Prerequisite: PSYC 100. A survey of the science of positive psychology. The aim is to analyze and evaluate theories and applications of positive psychology. Focus is on the unique characteristics of the human experience that contribute to health and well-being. Topics include hope, optimism, human strengths, happiness, flow, and attachment.

PSYC 495 Senior Seminar in Psychology (3)

(Intended as a final, capstone course to be taken in a student's last 15 credits.) Prerequisites: PSYC 100, PSYC 300, and completion of all requirements for the psychology major. A study of psychology that integrates knowledge gained through previous coursework and experience. The aim is to build on that conceptual foundation through case study, reflective essays, and portfolio development.

Public Safety Administration

PSAD 302 Introduction to Public Safety Administration (3)

Prerequisite: WRTG 112 or equivalent. An introduction to public safety administration for private- and public-sector applications. The objective is to identify key functions of public safety administration and describe the history and current forces and trends facing public safety administrators. An overview of public safety administration, highlighting its diverse aspects, is provided. Topics include management functions, paradigms and practices, challenges, and politics and risk.

PSAD 304 Contemporary Public Safety Practices (3)

Prerequisite: PSAD 302. An investigation of contemporary strategic public safety practices. The goal is to apply the concepts of hazard and risk identification and management, quality control methodology, customer service, integrated public safety services, and public and private partnerships to public service administration decision making. Discussion covers hazard and risk analysis, customer service awareness (including expectations and demands), quality control methodology (including industry standards and accreditation), integrated public services, best practices, and public/private partnerships.

PSAD 306 Public Safety Planning (3)

Prerequisite: PSAD 304. An examination of strategic and operational planning in public safety administration. The aim is to identify and analyze an existing organizational strategic plan that includes budgeting and resource allocation, identify and analyze an existing operational plan, and identify the process for imple-

mentation of operational plans. Topics include strategic plans, budgeting, resource allocation, operational plans, hazard mitigation plans, emergency operation plans, incident action plans, and implementation, including positive and negative forces.

PSAD 408 Public Safety Legal Issues and Public Policy (3)

Prerequisite: PSAD 304. A study of the legal and public policy issues faced by public safety administrators. The objective is to describe the legal system; the legal and political environment; administrative laws and regulations for the work environment; and the interrelationship among law, regulations, and public policy. Topics include the federal, state, and local legal systems; the legal and political environment; workplace administrative laws and regulations; public policy; liability; and risk reduction.

PSAD 410 Public Safety Research and Technology (3)

Prerequisite: PSAD 304 or HMLS 406. An examination of research and technology applications in public safety administration. The goal is to describe the principles of scientific research; evaluate existing research and technology; and apply the methods and resources of research, science, and technology to public safety administration. Topics include scientific research, research methodology, technology, and evaluating and utilizing research and technology in public safety administration.

PSAD 414 Public Safety Administration Ethics (3)

Prerequisite: PSAD 304 or HMLS 406. An in-depth examination of ethics and ethical issues in public safety administration. The aim is to formulate a personal ethics statement and develop an organizational code of ethics. Topics include the origin and history of ethics, ethical issues in public safety administration, ethical behavior, codes of conduct and codes of ethics, personal ethics statements, organizational culture, and political factors.

PSAD 416 Public Safety Leadership (3)

Prerequisite: PSAD 304 or HMLS 406. A study of leadership theories, skills, and techniques used in public safety administration. The objective is to define and explain basic concepts of leadership; analyze personal leadership knowledge, skills, and abilities; and evaluate leadership performance in the current public safety environment. Topics include leadership, leadership theories and styles, leadership roles, leadership performance, individual leadership skills and plans, effective leadership, and future trends.

PSAD 486A Workplace Learning in Public Safety Administration (3)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

COURSE INFORMATION

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PSAD 486B Workplace Learning in Public Safety Administration (6)

Prerequisites: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

PSAD 495 Public Safety Issues and Challenges (3)

(Intended as a final, capstone course to be taken in a student's last 15 credits.) Prerequisites: PSAD 306, PSAD 408, PSAD 410, PSAD 414, and PSAD 416. An intensive study of public safety administration that integrates knowledge gained through previous coursework and experience and builds on that conceptual foundation through integrative analysis, practical application, and critical thinking. Current and future issues in public safety administration are addressed. The aim is to integrate leadership, administration, and management concepts and apply them to current public safety issues and the protection of life, the environment, and property. Assignments include development of a comprehensive case study response to a current public safety issue and evaluation of peer reports.

Sociology

SOCY 100 Introduction to Sociology (3)

An introduction to the basic concepts, theoretical perspectives, and research methods in sociology. The objective is to apply sociological imagination, perspectives, and research to uncover patterns of social behavior. Topics include culture, socialization, groups, deviance, stratification, institutions, and social change. Students may receive credit for only one of the following courses: BEHS 102 or SOCY 100.

SOCY 300 American Society (3)

Prerequisite: SOCY 100. An intermediate-level survey of the structure and organization of American society, with special reference to recent social changes. The aim is to describe trends and patterns of social change in American society; compare American and global perspectives of American social values; and apply sociological theories to examine the character, structure, values, and ideology of contemporary American social thought. Topics include individualism, community commitment, and improving tolerance and equity in American society.

SOCY 309 Social Demography (3)

(Formerly SOCY 410.) Prerequisite: SOCY 100. A study of social demography. The goal is to identify, evaluate, and interpret key demographic concepts and develop an understanding of global population dynamics. Topics include types of demographic

analysis, demographic data, population characteristics, migration, mortality, fertility, population theories, world population growth, and population policy. Students may receive credit for only one of the following courses: SOCY 309 or SOCY 410.

SOCY 313 The Individual and Society (3)

Prerequisite: SOCY 100. An examination of changing concepts of the interaction between the individual and society. The objective is to analyze the roles of the individual and society in the creation of and change in persistent social problems, such as poverty and social inequality. Analysis employs the framework of classical functional conflict and social constructivist theories within the context of rapidly changing communication technology and globalization and their impact on the individual. Topics include the construction of social order; the role of trust in social interaction; and work, power, social organization, and the social self. Selected readings are taken from the sociologies of work, gender, modernity, postmodernism, globalization, and social change. Students may receive credit for only one of the following courses: BEHS 312, SOCY 311, or SOCY 313.

SOCY 325 The Sociology of Gender (3)

Prerequisite: SOCY 100. An inquiry into how gender is socially constructed and reconstructed in contemporary society. The aim is to assess the interaction between gender and other social identities.

SOCY 350 Contemporary Social Problems (3)

Prerequisite: SOCY 100. An advanced examination of various personal, institutional, cultural, historical, and global problems that confront American society today. Problems discussed range from crime, domestic violence, and alienation in modern society to the environment and political conflict. Emphasis is on issues of technology and social change. Students may receive credit for only one of the following courses: SOCY 105, SOCY 210, or SOCY 350.

SOCY 398 Special Topics in Sociology (3)

Prerequisite: SOCY 100. A study of topics of special interest. May be repeated to a maximum of 6 credits when topics differ.

SOCY 423 Race and Ethnicity: A Global Perspective (3)

Prerequisite: SOCY 100. An analysis of race, ethnicity, and human relations in global society. The goal is to analyze, communicate, and project future trends in racial and ethnic relations in the United States and abroad. Discussion covers factors that affect race and ethnic relations, such as inequality, prejudice, discrimination, power, and privilege. Topics include theories of race relations; the historical emergence, demographic projections, development, and institutionalization of racism; effects of racism; conflicts that are racially and ethnically based; and contemporary issues.

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SOCY 426 Sociology of Religion (3)

Prerequisite: SOCY 100. Recommended: BEHS 220 or HUMN 350. An advanced examination of religion from a sociological perspective. The aim is to evaluate the influence of social location on religious beliefs and attitudes; examine relationships between church and state; and analyze current religious conflicts and controversies. Topics include fundamentalism versus extremism; modernity; religious conflicts; and the relationship of religion with race, class, gender, sexuality, and politics.

SOCY 428 Migrants and Refugees (3)

Prerequisite: SOCY 100. An advanced sociological study of international, global, and economic issues regarding migrants and refugees, addressing population movements to and from countries. The objective is to analyze data and historical evidence and assess the role of globalization on migration. Topics include migrants and refugees, immigration, the role of conflict in migration, politics and laws regarding migrants and refugees, and the role of globalization in generating population flows.

SOCY 443 Sociology of the Family (3)

Prerequisite: SOCY 100. An advanced examination of the family in society. The aim is to apply major sociological theories to understand family as a social institution; describe the changing definitions of family; examine demographic changes in marriage and family patterns; and contrast micro- and macro-level interactions among individuals, families, and society. Topics include family research, single parenting, blended families, cultural differences in families, families over the life course, and governmental policies regarding families.

SOCY 462 Women in the Military (3)

Prerequisite: SOCY 100. An advanced examination of women in the military from a sociological perspective. The objective is to understand gender, power, and the changing roles of women in the military; assess how policies affect women in the military; examine military, community, and family support systems for military women; and compare the roles and duties of women in the U.S. armed forces in war and peacetime with those of military women in other countries. Topics include the social construction of gender and sexuality of the armed forces; the history of women in the military; violence against women in the military; rank, status, and advancement of women in the military; and postmilitary transitions and career options for women.

SOCY 473 Cities and Communities (3)

Prerequisite: SOCY 100. An advanced sociological study of cities and the urban landscape. The aim is to apply major sociological theories to investigate interdependencies between social action, urbanization, and the environment. Focus is on current issues

relevant to the challenge of building livable and sustainable cities. Topics include urban social networks, suburbanization, social problems of urbanization, and urban planning and policies.

SOCY 486A Workplace Learning in Sociology (3)

Prerequisites: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

SOCY 486B Workplace Learning in Sociology (6)

Prerequisites: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

Software Development and Security

SDEV 300 Building Secure Python Applications (3)

Prerequisite: CMIS 242, CMIS 215, or CMIS 225. A hands-on study of best practices and strategies for building secure Python desktop and web applications. The objective is to design and build Python applications that are resistant to common security threats. Topics include syntax, data structures, style guides, data munging, web application frameworks, and the use of secure coding tools and processes to guard against application vulnerabilities.

SDEV 325 Detecting Software Vulnerabilities (3)

Prerequisites: CMIS 320 and SDEV 300. An in-depth, practical application of techniques and tools for detecting and documenting software vulnerabilities and risks. The goal is to research, select, and use software to analyze code and isolate and prioritize application code and processes that could lead to failure or compromise data integrity or privacy. Topics include the top 25 software vulnerabilities, secure coding guidelines, static code analysis, and software assurance metrics.

SDEV 350 Database Security (3)

Prerequisite: CMIS 320. A study of processes and techniques for securing databases. The objective is to design, build, and maintain databases to minimize risks and security attacks. Topics include privileges and roles, user accounts, encryption, authentication methods, and auditing.

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SDEV 355 Securing Mobile Apps (3)

Prerequisite: SDEV 325. A hands-on study of best practices for designing and building secure mobile applications. The aim is to formulate proper defenses and processes to mitigate common attacks. Focus is on mobile device infrastructure, security models, and mobile applications. Topics include code analysis, risk modeling, native and web mobile applications security, secure mobile communication, and back-end application attacks and counterattacks.

SDEV 360 Secure Software Engineering (3)

Prerequisite: CMIS 242. An in-depth study of the processes, standards, and regulations associated with secure software engineering. The objective is to plan, manage, document, and communicate all phases of a secure software development cycle. Topics include security requirements, secure software life-cycle development, threat modeling, and Security Technical Implementation Guides (STIGs).

SDEV 400 Secure Programming in the Cloud (3)

Prerequisite: SDEV 300. A hands-on study of programming secure applications in the cloud. The goal is to design and build applications in the cloud while implementing appropriate security policies. Topics include cloud computing models, risks and security challenges of programming in the cloud, and data security.

SDEV 425 Mitigating Software Vulnerabilities (3)

Prerequisites: SDEV 325 and SDEV 360. An in-depth analysis and evaluation of the mitigation of software vulnerabilities. The aim is to detect and mitigate software vulnerabilities by evaluating code. Topics include language-specific software vulnerabilities, mitigation, and input validation.

SDEV 455 Risk Analysis and Threat Modeling (3)

Prerequisite: SDEV 360. An examination of the risks and threats associated with application development. The objective is to identify valuable assets, create system architecture diagrams, decompose applications, identify and prioritize threats, and document results in a threat model. Topics include security requirements and objectives, threat identification and mitigation, and calculation of risk.

SDEV 460 Software Security Testing (3)

Prerequisite: SDEV 425. A hands-on study of exploits, attacks, and techniques used to penetrate application security defenses and strategies for mitigating such attacks. The objective is to apply appropriate methodologies for software penetration testing to identify application weaknesses and logic flaws and to test and create scripts for exploitation and discovery. Topics include web architecture, application infrastructure, reconnaissance, discovery, mapping, and exploitation.

SDEV 486A Workplace Learning in Software Development (3)

Prerequisites: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

SDEV 486B Workplace Learning in Software Development (6)

Prerequisites: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

Spanish

SPAN 111 Elementary Spanish I (3)

(Not open to native speakers of Spanish; assumes no prior knowledge of Spanish. Students with prior experience with the Spanish language should take a placement test to assess appropriate level.) An introduction to the Spanish language. The objective is to listen to, speak, read, and write elementary Spanish in concrete, real-life situations and in culturally appropriate ways. The diverse language and culture of the Spanish-speaking world is explored. Students may receive credit for only one of the following courses: SPAN 101 or SPAN 111.

SPAN 112 Elementary Spanish II (3)

(Not open to native speakers of Spanish.) Prerequisite: SPAN 111 or appropriate score on a placement test. A continued introduction to the Spanish language. The goal is to listen to, speak, read, and write Spanish in concrete, real-life situations and in culturally appropriate ways. The diverse language and culture of the Spanish-speaking world is explored. Students may receive credit for only one of the following courses: SPAN 102 or SPAN 112.

SPAN 211 Intermediate Spanish I (3)

Prerequisite: SPAN 112 or appropriate score on a placement test. An intermediate-level study of the Spanish language. The aim is to improve listening, speaking, reading, and writing skills in Spanish and apply them in a variety of real-life situations and social contexts in culturally appropriate ways. Students may receive credit for only one of the following courses: SPAN 114, SPAN 201, or SPAN 211.

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SPAN 212 Intermediate Spanish II (3)

Prerequisite: SPAN 211 or appropriate score on a placement test. Further intermediate-level study of the Spanish language. The objective is to listen to, speak, read, and write Spanish and interact effectively with native speakers in a variety of personal and professional settings in culturally appropriate ways. Students may receive credit for only one of the following courses: SPAN 115, SPAN 202, or SPAN 212.

SPAN 311 Advanced Spanish I (3)

Prerequisite: SPAN 212 or appropriate score on placement test. An in-depth review and expansion of Spanish language communication skills. The aim is to express opinions and use narration and description in a variety of personal and professional contexts. Focus is on improving linguistic proficiency while increasing cultural awareness. Students may receive credit for only one of the following courses: SPAN 301 or SPAN 311.

SPAN 314 Modern Spanish-Speaking Cultures (3)

Prerequisite: SPAN 212 or appropriate score on placement test. An overview of the diverse cultures that constitute the Spanish-speaking world, taught entirely in Spanish. The objective is to foster intercultural communication skills, recognize aspects of Spanish-speaking cultures and their significance to global and American society, and employ strategies to enhance language development and cultural awareness. Discussion covers the social, historical, and political experience of the Spanish-speaking people of Latin America, Spain, and the United States.

SPAN 418 Business Spanish I (4)

(Formerly SPAN 318.) Prerequisite: Any 300-level SPAN course or appropriate score on placement test. An exploration of business contexts and practices in the Spanish-speaking world, taught entirely in Spanish. The objective is to use knowledge of diverse business cultures to communicate and interact effectively in a business environment. Topics include contemporary economic conditions in various Spanish-speaking areas (including those within the United States), enterprise, management, human resources, and cultural issues that influence the workplace. Assignments include preparing a job-search portfolio and making a business presentation, both in Spanish. Students may receive credit for only one of the following courses: SPAN 315, SPAN 318, or SPAN 418.

SPAN 419 Business Spanish II (4)

Prerequisite: Any 300-level SPAN course or appropriate score on placement test. A continued exploration of business conditions and practices in the Spanish-speaking world, taught entirely in Spanish. The goal is to use knowledge of diverse business cultures to communicate and interact effectively in a business environment in Spanish. Topics include contemporary economic

conditions in various Spanish-speaking areas (including areas within the United States), marketing, investments, finances, logistics, and cultural issues that influence the market. Projects include preparation of a business proposal portfolio and a professional presentation with a peer review, both in Spanish.

SPAN 486A Workplace Learning in Spanish (3)

Prerequisites: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

SPAN 486B Workplace Learning in Spanish (6)

Prerequisites: 9 credits in the discipline and prior program approval (requirements detailed online at umgc.edu/wkpl). The integration of discipline-specific knowledge with new experiences in the work environment. Tasks include completing a series of academic assignments that parallel work experiences.

Speech Communication

SPCH 100 Foundations of Oral Communication (3)

(Fulfills the prerequisite for all upper-level SPCH courses.) An introduction to oral communication, with emphasis on interpersonal communication, small-group communication, and public speaking. The objective is to prepare speeches, provide feedback to others, and participate in group activities. Students may receive credit for only one of the following courses: SPCH 100, SPCH 100X, SPCH 101, SPCH 107, or SPCH 108.

SPCH 125 Introduction to Interpersonal Communication (3)

(Fulfills the prerequisite for all upper-level SPCH courses.) An exploration of the role interpersonal communication plays in our personal and professional lives. The aim is to apply theoretical frameworks and key concepts in communication to personal behavior and personal and professional contexts. Topics include self-identity, perception, listening, verbal and nonverbal communication, relationship development, and conflict management.

SPCH 324 Communication and Gender (3)

Prerequisite: Any SPCH course or COMM 300. An investigation of how communication influences gender and how gender affects communication. The objective is to apply theoretical frameworks and key concepts of gender to contexts, situations, and messages. Discussion covers gender roles, gender variation across communication styles, and the role gender plays in personal and professional relationships, as well as its role in culture and the media.

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SPCH 470 Effective Listening (3)

Prerequisite: Any SPCH course or COMM 300. An exploration of the complexities of message reception and interpretation as related to personal growth, social relationships, and professional development. The goal is to assess and modify listening practices. Topics include the role of listening in communication, types of listening, and listening skills for specific contexts.

SPCH 472 Nonverbal Communication (3)

Prerequisite: Any SPCH course or COMM 300. A comprehensive investigation of nonverbal communication in human interaction. The aim is to analyze the impact of nonverbal messages on interpersonal, organizational, and public communication. Emphasis is on hands-on application of principles and practices to real-world situations. Topics include foundations of interpersonal attraction, use and abuse of personal space, and cross-cultural and gendered behaviors.

SPCH 482 Intercultural Communication (3)

Prerequisite: Any SPCH course or COMM 300. An examination of the major variables of communication in an intercultural context. The objective is to develop and apply communication strategies. Topics include cultural, racial, and national differences; stereotypes; values; cultural assumptions; and verbal and nonverbal channels.

Statistics and Probability

STAT 200 Introduction to Statistics (3)

An introduction to statistics. The objective is to assess the validity of statistical conclusions; organize, summarize, interpret, and present data using graphical and tabular representations; and apply principles of inferential statistics. Focus is on selecting and applying appropriate statistical tests and determining reasonable inferences and predictions from a set of data. Topics include methods of sampling; percentiles; concepts of probability; probability distributions; normal, t , and chi-square distributions; confidence intervals; hypothesis testing of one and two means; proportions; binomial experiments; sample size calculations; correlation; regression; and analysis of variance (ANOVA). Students may receive credit for only one of the following courses: BEHS 202, BEHS 302, BMGT 230, ECON 321, GNST 201, MATH 111, MGMT 316, PSYC 200, SOCY 201, STAT 100, STAT 200, STAT 225, or STAT 230.

STAT 400 Applied Probability and Statistics (3)

Prerequisite: MATH 141. An intermediate study of statistical and probabilistic theory. The aim is to apply quantitative tools for decision making and interpret statistical results in professional literature and the media. Topics include random variables, standard distributions, sampling methods, law of large numbers and the Central Limit Theorem, moments, estimations of parameters, and testing of hypotheses.

Theatre

THET 110 Introduction to the Theatre (3)

An introduction to the experience of the theatre. The objective is to gain a historical perspective and critically appraise dramatic content in performing arts. Emphasis is on engaging with theatrical performances as informed audience members and assessing one's role within the script-performance-audience dynamic. Assignments include attendance at two live professional performances. Students may receive credits for only one of the following courses: HUMN 110 or THET 110.

Women's Studies

WMST 200 Introduction to Women's Studies: Women and Society (3)

An interdisciplinary study of the status, roles, and experiences of women in contemporary society. The aim is to recognize the impact of gender in all academic disciplines; analyze political, economic, social, and cultural issues through a feminist lens; and apply knowledge of local and global issues to affect positive change in women's lives. Discussion covers women's experiences across geography and history. Topics include gender and other identities, systems of privilege and inequality, sexuality, and power relations.

Writing

WRTG 111 Academic Writing I (3)

(The first course in the two-course series WRTG 111–WRTG 112. Fulfills the general education requirement in communications.) An introduction to reading, writing, and critical thinking in an academic setting. The goal is to practice strategies for understanding academic texts and for developing one's ideas in relation to those texts. Focus is on writing thesis-driven essays that incorporate ideas and information from sources and demonstrate critical thinking, proper attribution, and effective language use. Students may receive credit for only one of the following courses: WRTG 100A, WRTG 111, or WRTG 111X.

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WRTG 112 Academic Writing II (3)

(The second course in the two-course series WRTG 111–WRTG 112. Fulfills the general education requirement in communications.) Continued practice in reading, writing, and critical thinking with an emphasis on research and argumentation. The goal is to implement strategies for analyzing ideas and rhetorical techniques in academic texts and for conducting academic research. Focus is on writing an argumentative research paper that synthesizes information and ideas from multiple sources and demonstrates critical thinking, varied rhetorical strategies, proper source documentation, and effective language use. Students may receive credit for only one of the following courses: ENGL 101, ENGL 101X, WRTG 101, WRTG 101S, WRTG 101X, WRTG 112, or WRTG 112X.

WRTG 291 Research Writing (3)

(Fulfills the general education requirement in communications.) Prerequisite: WRTG 112 or equivalent. Continued practice in critical reading, thinking, and writing skills. The objective is to analyze, evaluate, and synthesize diverse sources and viewpoints to develop persuasive and academic writing projects. Assignments include prewriting exercises, an annotated bibliography, a synthesis research essay, and a reflective paper. Students may receive credit for only one of the following courses: ENGL 291, ENGL 291H, or WRTG 291.

WRTG 293 Introduction to Professional Writing (3)

(Fulfills the general education requirement in communications.) Prerequisite: WRTG 112 or equivalent. An overview of professional writing. The goal is to analyze professional communication scenarios to develop effective workplace writing. Topics include the standards, conventions, and technologies of professional writing; communicating to a variety of audiences; and developing appropriate written responses to workplace challenges. Students may receive credit for only one of the following courses: COMM 293, ENGL 293, or WRTG 293.

WRTG 391 Advanced Research Writing (3)

(Fulfills the general education requirement in upper-level advanced writing.) Prerequisite: WRTG 112 or equivalent. Instruction and practice in academic research skills. The objective is to critically analyze scholarly and other credible sources and effectively integrate source material into a complex argument. Emphasis is on synthesizing multiple sources in producing a literature review on a focused topic. Students may receive credit for only one of the following courses: ENGL 391, ENGL 391X, WRTG 391, or WRTG 391X.

WRTG 393 Advanced Technical Writing (3)

(Fulfills the general education requirement in upper-level advanced writing.) Prerequisite: WRTG 112 or equivalent. Recommended: WRTG 291 or WRTG 293. A comprehensive, project-based study of applied technical writing. The aim is to design and develop appropriate and effective technical documents using strategies and technologies for a variety of audiences. Students may receive credit for only one of the following courses: COMM 393/393X, ENGL 393/393X, or WRTG 393/393X.

WRTG 394 Advanced Business Writing (3)

(Fulfills the general education requirement in upper-level advanced writing.) Prerequisite: WRTG 112 or equivalent. A comprehensive, project-based study of applied business writing. The aim is to develop documents appropriate to audience and purpose that are well argued and conform to standards of business writing. Topics include context, purpose, audience, style, organization, format, results, technologies, and strategies for persuasion in typical workplace messages. In addition to shorter assignments, a substantial formal report that incorporates research and support for conclusions or recommendations is required. Students may receive credit for only one of the following courses: COMM 394/394X, ENGL 394/394X, or WRTG 394/394X.

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Academic Success

ASC 601 Graduate Writing Skills (0)

(Recommended preparation for students who want to improve their writing skills.) Develop the skills needed for effective academic writing. Improve your grammar and punctuation skills. Summarize and synthesize texts, and develop well-organized essays, integrating sources into writing. Format academic papers according to APA style. Revise writing to produce clear, concise documents.

ASC 603 Introduction to Accounting and Financial Management (0)

(Recommended preparation for students who want a foundational background in accounting and finance.) Engage in a basic study of accounting and financial management concepts and their use in analyzing financial statements and estimating the value of long-term capital projects and investments. Analyze the financial statements of actual companies using financial ratios. Apply time value of money concepts to determine the current and future value of financial and real assets/investments. Develop an appreciation for how financial management and accounting information can be used to support financial assessment analysis, valuation, and decision making in various contexts.

ASC 605 Basic Information Technology (0)

(Recommended preparation for students who want a background in the basic configurations of computer hardware and operating systems software, especially those entering the cybersecurity technology, cyber operations, cybersecurity policy, and digital forensics programs who do not have a background in computing.) Explore concepts of computing. Discuss computer systems (including computer hardware and hardware components, computer software, and networks) and the internet. Develop your understanding of the privacy and security issues related to computing and the internet.

ASC 607 Introduction to Statistics (0)

(Recommended preparation for students who require knowledge of statistics to progress in their coursework.) Learn to derive meaning from quantitative analysis of data by employing fundamental concepts and methods of statistics. Explore approaches and develop skills necessary to evaluate research methods and their application to solving problems, including the reliability and validity of sources and types of data and portraying data in tables, graphs, and charts. Use inferential statistics to draw conclusions, calculate correlation and regression, and apply other statistical methods to inform decisions.

ASC 609 Essentials of Computer Programming (0)

(Recommended preparation for students with little or no programming experience, especially those entering the cybersecurity technology, cyber operations, cybersecurity policy, and digital forensics programs.) Recommended: ASC 605. Gain hands-on experience in creating computer programs. Explore all aspects of basic programming, including variables, arrays, conditions, and input/output. Build a foundation for more advanced work in computer programming.

ASC 611 Structure of Computer Programming (0)

(Recommended preparation for students with some programming experience, typically with older languages such as PRG and COBOL, especially those entering the cybersecurity technology, cyber operations, cybersecurity policy, and digital forensics programs.) Prerequisite: ASC 609. Gain hands-on experience in creating computer programs. Explore aspects of programming related to the structure of the program, including loops, procedures/functions, and leveraging other software libraries/packages.

Accounting

ACCT 610 Financial Accounting (3)

Prerequisite: 15 credits of undergraduate accounting. A study of accounting theory in a strategic framework. An overview of relevant theory provides a foundation for further study. Focus is on developing skills in critical thinking and applying accounting concepts and principles. Topics include the preparation and interpretation of corporate financial statements in accordance with generally accepted accounting practices (GAAP); accounting standards and the standard setting process; the use of electronic technology in financial accounting; effective communication; professional ethics; and current issues, debates, and research in accounting.

ACCT 611 Management Accounting (3)

Prerequisite: ACCT 610. An examination of the control and decision-making methodologies used by management accountants in solving strategic problems for business. Methodologies covered include break-even analysis, regression analysis, the balanced scorecard, activity-based costing/management, value chain analysis, total quality management, and performance evaluation/assessment. Business problems examined range from ethical issues to product costing.

ACCT 613 Federal Income Taxation (3)

Prerequisite: ACCT 610. A case study-based, problem-oriented examination of fundamental federal tax concepts. Tax issues and controversies are explored in depth. Emphasis is on applying tax laws, as opposed to learning individual tax rules. Methods of case analysis and research that are typically involved in tax planning

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and litigation are covered. Important definitions, judicially created rules, and other tax conventions are explored in great detail through the study of each one's genesis and purpose. Topics include tax issues that concern gross income, identification of the proper taxpayer, deductions, timing, income and deduction characterization, and deferral and capital gains and losses.

ACCT 618 Accounting Information Systems (3)

(Formerly ACCT 614.) Prerequisite: ACCT 610. A study of the use of information systems in the accounting process, with an emphasis on computer systems and internal controls. Focus is on the analytical tools necessary to evaluate users' accounting information needs and to design, implement, and maintain an accounting information system to support business processes and cycles. Topics include the components of contemporary accounting information systems; security and internal controls, particularly within internet and e-commerce environments; traditional flow charts and data-flow diagrams; computer networks; theory and application of relational databases; and relational database management systems. Assignments include designing an accounting information system using a commercial database software package.

ACCT 620 Cyber Accounting: Management and Compliance (3)

Prerequisites: ACCT 610 and ACCT 618. An applied study of the principles of information systems management and their integration within private-sector organizations served by accounting professionals. Emphasis is on developing strategic cyber accounting initiatives to increase cybersecurity awareness inside organizations, with organizations in its supply chain, and with other stakeholders. Topics include cybersecurity compliance requirements issued by federal and state regulatory agencies and voluntary cybersecurity standards, such as the G-7 Fundamentals of Cybersecurity for the Financial Sector and the AICPA's Cybersecurity's Risk Management Framework.

ACCT 625 Government and Not-for-Profit Accounting (3)

Prerequisite: ACCT 610. A study of the financial accounting standards applicable to public-sector and not-for-profit organizations in the United States and their unique reporting requirements. Emphasis is on similarities and differences among accounting rules for different types of entities and the rationale for the accounting standards governing each type. Students may receive credit for only one of the following courses: ACCT 625 or ACCT 665.

ACCT 628 Auditing (3)

(Formerly ACCT 612.) Prerequisite: ACCT 610. An in-depth examination of generally accepted auditing standards (GAAS), as well as standards for attestation and other services. Alternative audit models are evaluated for both their practical relevance and their theoretical justification as informed by current research and emerging information technology. The use of computer-assisted auditing techniques (CAAT) and other computer-related technology for obtaining evidence is evaluated in terms of its effectiveness and suitability in diverse audit environments. Methods of evaluating internal control are considered in light of the risks encountered in new ways of conducting business, such as e-commerce. Professional, ethical, and legal responsibilities, as shaped by the contemporary professional, legal, and regulatory environments, are examined as they relate to audit risk, risk assessment, and audit program planning. The use of audit reports and other services as tools to support management control and decision making are considered.

ACCT 630 Fraud Examination (3)

Prerequisite: ACCT 610. A study of the nature and elements of fraud. Topics include fraud prevention, fraud detection, fraud investigation, use of controls to prevent fraud, and methods of fraud resolution. Emphasis is on the use of forensic accounting techniques to analyze what is behind the data being generated by the accounting system, detect internal control weaknesses, and map out a fraud investigation program. Students may receive credit for only one of the following courses: ACCT 608 or ACCT 630.

ACCT 635 Accounting Ethics (3)

Prerequisite: ACCT 610. A study of ethics as a critical foundation for the accounting professional. Topics include the theories and bases of ethical reasoning, development of ethical standards, codes of professional conduct, professional responsibilities and judgment calls in accounting, and the evolution of ethics in the accounting profession. Students may receive credit for only one of the following courses: ACCT 608 or ACCT 635.

ACCT 640 International Accounting (3)

Prerequisite: ACCT 610. An exploration of international accounting and financial reporting. Focus is on evolving reporting requirements under International Financial Reporting Standards (IFRS). Accounting practices, as influenced by business operations, culture, and the inherent risk in international accounting environments, are compared. Students may receive credit for only one of the following courses: ACCT 640 or ACCT 665.

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ACCT 645 Cyber Forensics in Accounting (3)

Prerequisites: ACCT 610, ACCT 618, ACCT 628, and ACCT 630. An applied study of the tools, techniques, and technologies used in forensic accounting investigations, data analytics, and litigation. Focus is on disentangling obscure evidence discovered during fraud investigations using data analytics. Activities include conducting a forensic accounting investigation, performing analytical tests on financial data, preparing written forensic accounting reports for legal proceedings, and serving as an expert witness providing testimony supported by evidence and analytical tests.

ACCT 660 Information Technology Auditing (3)

(Formerly MSAS 670.) Prerequisites: ACCT 618, ACCT 628, ACCT 630, and INFA 610. A study of accounting and information systems that integrates subject matter from both disciplines. Advanced principles, techniques, and theories are applied through the analysis and presentation of case studies by student teams. Assignments include a research paper that comprehensively assesses an important current issue or emerging trend in the fields of accounting and information systems.

ACCT 670 Capstone in Cyber Accounting: Risk Management (3)

Prerequisites: Completion of all program courses; may be taken concurrently with ACCT 635 or INFA 660. A capstone exploration of the principles of risk management as practiced by federal, state, and local entities. Discussion examines cyber accounting risks management as promulgated by professional accounting organizations such as the AICPA. Risk management techniques are applied to cybersecurity issues confronting professional accounting service providers. Focus is on developing skills in assessing client risks, designing and developing cybersecurity controls to mitigate cyber attacks on client data, and conducting penetration tests to identify potential cyber accounting vulnerabilities.

Accounting and Financial Management

MSAF 670 Accounting and Financial Management Capstone (3)

Prerequisite: Completion of all program courses except FIN 645. A capstone study of accounting and financial management that integrates subject matter from both disciplines. Advanced principles, techniques, and theories are applied through the analysis and presentation of case studies by student teams. Assignments include a research paper that comprehensively assesses an important current issue or emerging trend in the fields of financial management and accounting.

Acquisition and Supply Chain Management

ASCM 626 Purchasing and Materials Management (3)

An overview of the procurement and contracting cycle, along with other organizational functions. Discussion covers methods of purchasing and source selection, with a focus on receipt, inspection, and quality assurance. Documentation and reporting specifics are examined, as are surplus, salvage, and disposal issues. Inventory, physical distribution, and logistics are considered.

ASCM 627 Legal Aspects of Contracting (3)

A study of the law of commercial purchasing, including the law of agency, contracts, sales, torts, and antitrust. The Federal Acquisition Regulation and American Bar Association Model Procurement Code for State and Local Governments are examined. Topics include the authority of purchasing, unauthorized purchases, rights and duties of sellers and buyers under a contract, buyer rights upon receipt of nonconforming goods, ability to terminate a sales contract, formation of government contracts, and formal dispute resolution. Students may receive credit for only one of the following courses: ASCM 627 or ASCM 650.

ASCM 628 Contract Pricing and Negotiations (3)

A study of techniques for planning, conducting, and managing negotiated procurement. Focus is on analytical techniques for conducting price and cost analysis in preparation for negotiations. Techniques for critically examining all categories of costs, including profit, are examined. The theory and practice of negotiations are studied, and opportunities to practice negotiation techniques to achieve a fair and reasonable contract price are given. Emphasis is on practice in preparing negotiation positions through analysis of cases containing detailed cost and pricing data. Ethical decision making throughout these processes is addressed.

ASCM 629 Strategic Purchasing and Logistics (3)

An investigation of issues and methodologies related to strategic purchasing and logistics. Topics include the ethics, social responsibility, and accountability considerations in procurement, logistics, and contract management. Discussion also covers the professional development of staff, just-in-time management, electronic data interchange, vendor assessment and development, pricing and negotiation, and international procurement issues.

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ASCM 630 Commercial Transactions in a Technological Environment: Law, Management, and Technology (3)

(Formerly PCMS 630.) Recommended: ASCM 627, PCMS 627, or ADMN 627. A presentation of the legal issues and management methodologies related to commercial transactions in a technological environment. Topics include the law, ethics, accountability, and contract management considerations in the procurement of technology products and services. Discussion also covers commercial sales transactions, government commercial item acquisition, private and government contracts for services, assignment and protection of proprietary rights in technology products, technology transfers, and international contractual issues in the procurement of products and services. Students may receive credit for only one of the following courses: ASCM 630, ASCM 650, PCMS 630, or PCMS 650.

ASCM 631 Integrative Supply Chain Management (3)

A study of supply chain issues, techniques, methodologies, and strategies designed to enhance organizational procurement efficiency. Integrated supply chain management, as a core competitive strategy that affects the organization's bottom line, is explored. Topics include the integration of information, supplies, and materials flows across multiple supply chain channels and how these flows can be streamlined and optimized for more efficient procurement. Discussion also covers the role of information systems and technology in supply chain management, e-commerce strategies, managing the flow of materials across the supply chain, developing and maintaining supply chain partnerships and other relationships, and future challenges in integrative supply chain management.

ASCM 632 Contemporary Logistics (3)

A study of logistical issues, techniques, methodologies, and strategies designed to enhance organizational efficiency. Topics include the total cost approach to logistics; logistical planning and implementation; logistical concepts; systems relationships and integration; demand forecasting; interplant movement; inventory management and control; order management and processing; packaging; plant and warehouse selection; production scheduling; traffic and transportation management; warehouse and distribution management; recycling; and other logistical strategies, techniques, and methodologies.

ASCM 650 Legal Aspects of Contracting and Commercial Transactions (6)

A study of the law relevant to commercial, governmental, and international purchasing, contracting, and other legal transactions. Focus is on agency law, contracts, sales, torts, antitrust, ethics, and accountability. Discussion covers contract management considerations in the procurement of products and services. Topics include commercial sales transactions, government commercial item acquisition, private and government contracts for services,

assigning and protecting propriety rights in technology products, technology transfers, and international contractual issues in the procurement of products and services. The Federal Acquisition Regulation (FAR) and American Bar Association Model Procurement Code for State and Local Governments are investigated. The authority of purchasing, unauthorized purchases, rights and duties of sellers and buyers under a contract, buyer rights upon receipt on nonconforming goods, ability to terminate a sales contract, formation of government contracts, and formal dispute resolution are also addressed. Students may receive credit for only one of the following courses: ASCM 627, ASCM 630, or ASCM 650.

Bioinformatics

BIFS 613 Statistical Processes for Biotechnology (3)

Prerequisite: STAT 200. A study of statistical tools, such as Bayesian statistics, Markov processes, and information theoretic indices, and how they can be used to analyze sequence homology, the presence of motifs in sequences, gene expression, and gene regulation. Topics include information content, mutual information, long-range correlation, repeats, Fourier analysis, and linguistic methods.

BIFS 614 Data Structures and Algorithms (3)

An introduction to the definitions, implementations, and applications of the most basic data structures used in bioinformatics. Basic formalism and concepts used in algorithm design and the analysis of algorithms are also introduced. The relative efficiency of algorithms is estimated by application of these concepts to biological data analysis. Algorithms and data structures discussed include those for database searches, motif finding, sequence alignment, gene prediction, and microarray analysis.

BIFS 617 Advanced Bioinformatics (3)

Prerequisites: UCSP 635 and UCSP 636 or equivalents. An overview of basic programming concepts for performing bioinformatics analyses of biological data. Topics include software development life cycle, data types and data representation, arithmetic and logical operations, conditional execution, iteration, functions, and arrays. An overview of basic data structures is also covered. Emphasis is on bioinformatics pipeline development, automation of data analysis, and building of bioinformatics applications using a high-level programming language.

BIFS 618 Java for Biotechnology Applications (3)

Prerequisite: BIFS 617. A study of basic concepts in Java and object-oriented programming in bioinformatics application development. Emphasis is on web-based, graphical, and database-driven application design. Review covers the function and design of some Java-based bioinformatics tools. Some commonly used

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libraries in the BioJava project are introduced, and developments of reusable modular application objects are examined. Basic problem-solving skills in the field of biotechnology using Java programming are developed through practical projects.

BIFS 619 Systems Level Approaches in Bioinformatics (3)

Prerequisite: BIFS 617. A study of the bioinformatics techniques used in omics (genomics, proteomics, etc.) experiments. Focus is on analyzing experiment protocols, comparing the tools used for these experiments, and interpreting the data resulting from the experiments.

Biosecurity and Biodefense

BSBD 640 Agents of Bioterrorism (3)

An examination of the probable weapons of biowarfare, including biological, chemical, and nuclear weapons, from several perspectives. Topics include their mechanism of action, biological impact, detection and recognition, epidemiology, and treatment. Their potential dangers and effectiveness are evaluated, and strategies for defense against attacks by such weapons are investigated. Discussion covers the bioethical challenges of anti-bioterror research.

BSBD 641 Biosecurity and Bioterrorism (3)

A review of bioterrorism, biosecurity, and government biodefense strategy, including the history and science of biological agents in agriculture and society. Discussion covers surveillance; public health preparedness; response; and recovery at the community, state, and federal government levels. Various aspects of the law, including the Posse Comitatus Act and federal and state quarantine powers, are introduced. The mental health consequences of bioterrorism are also discussed. A case study of a hypothetical biological attack is analyzed in detail.

BSBD 642 Advanced Biosecurity and Bioterrorism (3)

Prerequisite: BSBD 641. A thorough examination of special and advanced topics in bioterrorism and biosecurity issues. Topics include the hidden biological warfare programs of the 20th century; advances in biotechnology and molecular microbiology and the dilemma of dual-use research; domestic and foreign terrorist groups, including rogue states; state-of-the-art microbial forensics; ethics and civil rights; and current trends in policy development, consequence management, and public health responses to new threats to homeland security. Discussion also addresses special topics of the students' choice. Future challenges in biosecurity are discussed as part of a comprehensive bioterrorism exercise and the analysis of case studies of hypothetical threats.

BSBD 643 Strategies for Interagency Cooperation, Verification, and Global Countermeasures in Biodefense (6)

An in-depth study of the verification procedures used in global countermeasures and strategies. Global biosecurity and oversight are examined using real-world examples. Discussion covers the epidemiology of emerging infectious diseases as they relate to defense against threats from nonconventional sources. Topics also include the evolution and current status of the Biological Weapons Convention; the integration of responses from local, state, and multiple federal agencies; and other challenges facing public health departments, including the potential economic, political, and social impacts of bioterrorism.

Biotechnology Management

BTMN 632 Commercializing Biotechnology in Early-Stage Ventures (3)

(Formerly BIOT 641.) An overview of the methods for planning and organizing biotechnology ventures. The elements of a business plan are considered, as are methods for assessing various needs, such as capital, personnel, technology, and marketing. Emphasis is on approaches to marketing technology and developing joint ventures. The advantages and disadvantages of forming international ventures are weighed. Discussion also covers the importance of maintaining relations with external constituents and the need for managing public awareness.

BTMN 634 Selection and Evaluation of Biotechnology Projects (3)

A study of the applications of methodologies for technology forecasting, technology assessment, project management, and data auditing to the selection and evaluation of biotechnology projects. The underlying rationale, principles, procedures, and cost effectiveness of data auditing are examined. A systems approach to performance evaluation is presented.

BTMN 636 Biotechnology and the Regulatory Environment (3)

A comprehensive review of the role of regulation in biotechnology products and services development and commercialization. Emphasis is on the roles of the federal government, state government agencies, international bodies, and professional groups, especially the regulatory roles of the U.S. Environmental Protection Agency, Department of Agriculture, and Food and Drug Administration. Discussion covers human subject protection, good laboratory practices, and good manufacturing practices.

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Biotechnology Regulatory Affairs

BTRA 640 Preclinical and Clinical Research Design (3)

An examination of preclinical and clinical research designs. Emphasis is on identifying and addressing challenges associated with elements of good laboratory and clinical practice and qualifying and managing a laboratory for a clinical trial. Discussion covers best practices for planning research and collecting, analyzing, and reporting data from drug/device development studies.

BTRA 641 Product Life-Cycle Approval, Production, and Marketing for Devices and Drugs (3)

An in-depth study of the product life cycle for medical devices and implants and pharmaceuticals. Focus is on the various stages within the life cycle from conceptualization of a product pipeline in research and development through postmarket surveillance and production. Topics include regulatory submission, approval, production, and the postmarket environment for both drugs and devices. Challenges surrounding the approval and naming of follow-on biologics are addressed. Discussion also covers combination medicines, the stages of a drug pipeline and risk assessment at each stage, and the decreasing productivity of the drug pipeline. The role of a contract research organization in testing and approval is explained, and the nature of the support services they provide to the biotechnology and devices industry is explored.

BTRA 642 Global Biotechnology Business Issues (3)

An exploration of different aspects of international pharmaceutical regulation, as outlined in the International Conference on Harmonization of Technical Requirements for Registration of Pharmaceuticals for Human Use. Topics include international biotechnology issues, global harmonization efforts, and the cultural impact of biotechnologies. Discussion also covers domestic and international business considerations and international regulatory requirements.

BTRA 643 Practical Applications of Biotech Regulatory Affairs (6)

A capstone study of regulatory affairs related to the biotechnology industry that integrates knowledge and skills gained from previous study. Emphasis is on completion of a group project simulating the development of a drug or device through the product life cycle. The project is designed to demonstrate knowledge of international biotech business, ethics, and production issues, as well as skills in making decisions regarding a wide range of regulatory issues, and to provide a transition for applying these skills to applications in the biotechnology environment.

Biotechnology Studies

BIOT 601 Introduction to Molecular Biology (3)

A thorough grounding in the fundamentals of biology, including a broad review of the life sciences with emphasis on molecular biology. Topics include the basic concepts and processes of cell biology, molecular biology, and immunology. The components of a cell, the processes occurring in a single cell, and the functioning of a multicellular organism are explained. Discussion also covers the use of model organisms to understand basic and applied biology.

BIOT 630 Introduction to Bioinformatics (3)

An introduction to bioinformatics. Emphasis is on the interpretation of data. Topics include new, sophisticated DNA, RNA, and protein sequence analyses and pattern recognition and DNA computing, as well as more traditional mathematical modeling (using Bayesian probability and basic algorithms, machine learning and neural networks, and Markov models and dynamic programming). Discussion also covers the analysis of tridimensional structures, phylogenetic relationships, and genomic and proteomic data.

BIOT 640 Societal Issues in Biotechnology (3)

An examination of current societal issues in biotechnology from several perspectives. Topics include the commercialization of biotechnology; biohazards; managerial views of legal issues and bioethics; the need for public scrutiny; environmental and cultural issues; and the role of governmental regulatory agencies in researching, developing, and commercializing biotechnology. An overview of the early history and modern developments of biotechnology is provided.

BIOT 643 Techniques of Biotechnology (3)

A comprehensive review of current techniques in biotechnology research and applications. The development and use of some of the techniques are placed in historical context. Discussion covers techniques used in genomics, transcriptomics, and proteomics and the applications of these techniques. Current plant and animal transformation methods are explained. High throughput technologies, including sequencing, real time RT-PCR, SAGE, and microarrays, are also explored. Topics also include therapeutic applications of biotechnology, such as gene therapy, stem cell technology, and RNA interference. Emerging technologies in this field are introduced.

BIOT 645 Bioprocessing and the Business of Biotechnology (3)

A detailed exploration of the business of biotechnology, its structure and operation, and the science upon which this relatively new global industry sector was founded. Discussion covers a wide range of biotechnology applications, from biopharmaceuticals

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to biofuels, and the technical advances behind them. Focus is on methods and economics of bioprocessing and unique aspects of the funding, alliances, and global models used in the business of biotechnology.

BIOT 670 Capstone in Biotechnology (3)

Prerequisite: Completion of 30 credits of program coursework, including all core courses. The application of knowledge gained through previous study to projects focused on specific aspects of biotechnology management, biodefense, regulation, and bioinformatics. Focus is on demonstrating research, analytical, oral and written communication, teamwork, and leadership skills as well as developing new skills through a semester-long project that culminates in the development of a strategic product. Projects are garnered from the industry as well as academic and government organizations and are designed around problems that the organizations are working on.

Business Administration— Doctoral Level

DBA 600 Foundations of Doctoral Studies (3)

Prepare for doctoral studies by developing foundational skills in evidence-based research and analytical writing. Engage in critical thinking, in-depth analysis, evaluation of published scholarship, and research synthesis. Assess personal readiness for doctoral study.

DBA 800 Interpreting and Translating Management Theory in Practice (6)

Evaluate management theories to explain organizational operations in relation to forces that act at the level of the individual, group, and society. Connect these explanations within practitioner systems, and analyze and associate management theories with practical management strategies.

DBA 810 Research as a Tool for Management Decision Making (6)

Develop the capability to review, evaluate, and perform management research for decision making, and critically interpret both qualitative and quantitative research methodologies. Apply tools of business research to advise an organization in decision making. Refine skills to effectively communicate management research findings to practitioners.

DBA 820 Evidence-Based Research Methods (6)

Acquire and appraise evidence using sophisticated bibliographic search strategies to inform management decision making. Defend qualitative data analysis research choices. Apply evidence-based solutions to an organization, and assess their effectiveness. Develop a plan to use assessments to iteratively improve solutions.

DBA 830 Data Analytics in Practice (6)

Review and refine quantitative skills essential for analytical leadership. Explore methods of data mining, forecasting, and predictive models to inform and enable evidence-based decision making, and investigate the data environment in an organization. Assess an enterprise's current capabilities to develop recommendations for a stronger business intelligence climate.

DBA 840 Designing Evidence-Based Management Solutions (6)

Prepare advice for an organization seeking management solutions to a specific problem. Analyze and evaluate organizational context, select appropriate management tools, and develop solutions. Employ project management methods, and collaborate effectively with the team in person and online. Produce written and oral presentations of results and recommendations to organizational stakeholders.

DBA 850 Producing Original Management Ideas That Influence: Publishing and Conferencing (6)

Identify a management problem, create an evidence-based research approach to solve the problem, and execute it. Present results at a scholarly or practice conference, and submit written results in the form of a professional-quality article to a scholarly or practice journal.

DBA 860 Producing Actionable Knowledge: Dissertation Problem Statement and Literature Review (4)

Construct a framework for investigating a relevant management problem. Identify the scope of the problem, construct a suitable research question, and examine the scholarly literature that provides a credible and insightful explanation of the primary concepts and relationships surrounding the problem. Produce the dissertation problem statement and literature review chapter.

DBA 870 Producing Actionable Knowledge: Dissertation Methodology and Analysis (4)

Design an evidence-based research approach to investigate the dissertation management problem. Collect relevant data to answer the research question, and analyze and interpret the data to consider how they inform the research question. Produce the dissertation methods and results chapters.

DBA 880 Producing Actionable Knowledge: Management Implications from Dissertation Research (4)

Complete the dissertation process. Formulate and explain the implications and value of the research findings for management practice, and make specific recommendations to improve management practice. Present and defend the dissertation research successfully, and publish it.

DBA 899 Continuing Doctoral Matriculation (1)

Continue dissertation work.

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Business Administration— Master's Level

MBA 610 Leading Organizations and People (6)

Prerequisite: PRO 600. Assess and develop leadership skills by creating personal leadership and professional development plans that are refined during the program. Develop a strategic understanding of your organization by analyzing its mission, vision, goals, and values. Evaluate your organization's culture, climate, and approach to decision making and assess leadership effectiveness, governance structure, and processes. Explore how high-performing work teams can be a source of competitive advantage.

MBA 620 Financial Decision Making (6)

Prerequisite: MBA 610. Apply concepts behind financial statements, pricing, cost analysis, and capital budgeting in decisions. Propose solutions in real-world scenarios by using published financial reports and data from well-known national and international brands. Apply concepts from managerial economics to make pricing decisions for a business. Review business performance by analyzing the cash flow statement, income statement, and balance sheet. Make cost allocation, financing, and investment decisions by applying knowledge of corporate valuation. Determine the cost of capital, and make capital budgeting decisions.

MBA 630 Leading in the Multicultural Global Environment (6)

Prerequisite: MBA 620. Enhance cultural competence and evaluate opportunities and risks for operations in a global market. Expand the ability to apply ethical decision-making models. Assess issues of culture, business ethics, employment law, contracts, and criminal law in the context of a global business. Analyze political, legal, economic, and cultural forces that impact multinational businesses. Recommend the legal form and organizational structure of a business.

MBA 640 Innovation Through Marketing and Technology (6)

Prerequisite: MBA 630. Apply principles of market research and branding to innovative offering. Use web analytics to make decisions in digital marketing. Organize tasks in a marketing plan, assess market risk and opportunity, and collect data required to implement the marketing plan. Develop financial projections and suitable metrics for tracking the marketing plan.

MBA 670 Strategic Decision Making (6)

Prerequisite: MBA 640. Assume the role of a strategy officer who reports to the CEO. Develop an understanding of strategic leadership. Identify activities in the value chain of an organization

and propose a plan to relocate one or more activities to another geographical region. Prepare a project management plan for the opening of a facility in a new country. Develop a business plan that includes an entry strategy, marketing plan, competitive strategy, and financial statements.

Cloud Computing Architecture

CCA 610 Cloud Services and Technologies (6)

Prerequisite: DCL 600. Master the concepts underlying cloud computing, cloud services, and cloud applications. Investigate and analyze the technologies and services of the cloud services industry, and distinguish between different cloud development environments. Evaluate the risk and the legal and regulatory compliance issues associated with cloud adoption while identifying the benefits of cloud infrastructure for the organization.

CCA 625 Network Engineering (6)

Prerequisite: CCA 610. Explore network engineering concepts, functions, applications, configurations, and hardware. Review network protocols and services that serve as the foundation to enable IT infrastructure and services. Evaluate network specifications and requirements using industry best practices and standards in designing network infrastructures to meet business needs.

CCA 630 Cloud Infrastructure Planning, Design, and Configurations (6)

Prerequisite: CCA 625. Apply the underlying concepts, standards, and technologies of cloud computing (including virtualization, cloud data management, cloud programming models, cloud analytics applications, interoperability, and portability) to the planning, design, and configuration of a cloud infrastructure. Prepare policies and documents to plan and design a cloud infrastructure successfully, including a policy document, architecture plan, cloud deployment run book, and user training plan. Perform baseline configurations on the cloud environment to satisfy business requirements.

CCA 640 Cloud Computing Implementations and Migrations (6)

Prerequisite: CCA 630. Implement and configure a cloud environment based on specifications. Analyze current workloads, migrate existing IT systems to the cloud, and configure new systems or services to enhance business operations. Manage the implementation of the cloud to ensure successful deployment. Configure features for elasticity, availability, and scalability using industry-standard techniques, best practices, and tools.

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CCA 670 Capstone: Cloud Computing Orchestration (6)

Prerequisite: CCA 640. Assume the role of a cloud computing architect. Implement advanced features of the cloud platform, including auditing and logging, cloud orchestration, service catalog, and cloud metering and billing. Investigate, plan, and implement these features on a specific cloud platform. Prepare a cloud portfolio report based on cloud migrations and implementations completed in the program.

Criminal Justice Management

CJMS 600 Critical Analysis of the Criminal Justice System (3)

An analysis of the U.S. criminal justice system. Topics include the role of criminal justice agencies and personnel in the prevention and response to crime and interagency cooperation and coalition building from a manager's perspective.

CJMS 610 Perspectives in Law Enforcement Management (3)

A study of law-enforcement philosophies and techniques to reduce crime commonly applied at the organizational level. Topics include the politics of policing, police/community relations, police research, professionalization of personnel, and emerging problems in policing from a domestic and international perspective.

CJMS 620 Issues in Correctional Administration (3)

Prerequisites: CJMS 600 and CJMS 610. An in-depth study of current challenges for managers in correctional environments. Topics include the privatization of corrections, intelligence sharing, re-entry and community corrections, security threat groups, assessment techniques and empirical evaluations of treatment methods, special populations, growth rates, the political environment, and interagency and community cooperation.

CJMS 630 Seminar in Security Management (3)

Prerequisites: CJMS 600 and CJMS 610. A study of the management of security operations within a private setting. Discussion covers vulnerability assessment; emergency planning; interagency cooperation; threat assessment; use of technology; and information gathering, sharing, and storing. Topics also include personnel management, budgeting, reporting requirements, and current trends.

CJMS 640 Criminal Justice Intelligence Systems and Approaches (3)

Prerequisites: CJMS 600 and CJMS 610. An in-depth examination of the principles that guide the gathering and sharing of intelligence in the United States. Emphasis is on the interoperability between crime-fighting agencies within the criminal justice system. Topics include analytic methodologies, interview and interrogation techniques, open-source and proprietary data sources, criminal organization analysis, criminal conspiracy, enterprise theory, trial testimony, and witness protection.

CJMS 650 Legal Aspects Within the Criminal Justice System (3)

Prerequisites: CJMS 600 and CJMS 610. An introduction to the impact of constitutional and criminal law on managerial responsibilities within the criminal justice system. Topics include pivotal historic and current legal cases and their application to methods of prevention, as well as reaction to crime in the United States.

CJMS 660 Issues in Criminal Justice Leadership (3)

Prerequisite: 30 credits of program coursework, including all core and criminal justice management specialization courses except MGMT 670. A discussion of case studies involving successful leaders in the criminal justice system. Analysis covers the various characteristics and leadership styles that have proven most effective in the profession. Various theories, models, historical examples, and practical applications are reviewed. Senior criminal justice leaders discuss issues via videoconferencing. Topics include ethics and virtue in criminal justice; navigating the political environment (e.g., being politically savvy without being political); staff development; and labor relations, media relations, and working effectively with various advocacy groups.

Cyber Communication and Leadership

CBR 600 Communicating, Problem Solving, and Leading in Cybersecurity (6)

Make yourself more valuable to an employer by gaining and improving skills in communication and problem solving. Explore the field of cybersecurity by developing connections to your career aspirations, creating a professional social network presence, and using critical thinking to inform decisions. Improve and refine your skills in communication, critical thinking, quantitative reasoning, and team leadership. Hone your professional writing and oral communication skills to produce effective presentations and become proficient with current technology.

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Cyber Operations

COP 610 Foundations of Cyber Operations (6)

Prerequisite: DCL 600. Gain the foundational information security knowledge and skills needed to work in cyber operations, including security first principles, access control, and layered defense. Apply risk analysis of information and information systems, integrate cryptographic techniques for protecting information, and crack codes through the use of cryptoanalysis.

COP 620 Cybersecurity Defense (6)

Prerequisite: COP 610. Master the application of defense-in-depth architecture in system design, and counteract threats and vulnerabilities in networks, devices, operating systems, data management systems, and applications. Identify cloud and virtualization security issues and respond to them using their countermeasures. Apply intrusion, cyber defense, and attack detection techniques in a laboratory.

COP 630 Cyber Law and Digital Forensics (6)

Prerequisite: COP 620. Explore U.S. and international laws governing cyber operations and digital evidence. Design a cyber offense campaign that complies with U.S. laws, and apply digital forensics tools and techniques for network, media, and RAM of common operating systems and devices in a virtual environment.

COP 640 Secure Software (6)

Prerequisite: COP 630. Master secure design and operation principles by examining classes of well-known defects that lead to security vulnerabilities, and utilize both static and dynamic analysis tools to find those vulnerabilities. Apply secure design principles in a virtual environment.

COP 670 Capstone in Cyber Offense (6)

Prerequisite: COP 640. Assume the role of a cyber warrior. Apply reverse engineering techniques to analyze malware and system software, and implement cyber offense techniques in a laboratory to penetrate and infect a system that lacks cyber defenses.

Cybersecurity

CYB 610 Cyberspace and Cybersecurity Foundations (6)

Prerequisite: CBR 600. Gain knowledge of the foundations of cybersecurity, and apply cyber methodologies to cyber architectures, services, protocols, algorithms, hardware and software components, and programming language. Become familiar with the important role that business continuity planning, security management practices, security architecture, operations security, and physical security play in cybersecurity. Explore the impact of cyber

terrorism and national security on cybersecurity. Gain hands-on, real-world experience with state-of-the-art tools and technologies in a lab-intensive environment.

CYB 670 Capstone in Cybersecurity (6)

Prerequisite: CST 640, DFC 640, or CMP 640. Assume the role of a cybersecurity professional by examining current issues in cybersecurity management, including enterprise risk management, vulnerability assessment, threat analysis, crisis management, security architecture, security models, security policy development and implementation, security compliance, information privacy, identity management, incident response, disaster recovery, and business continuity planning, particularly in the health, banking, and finance sectors.

Cybersecurity Management and Policy

CMP 610 Foundations in Cybersecurity Management (6)

Prerequisite: CBR 600. Apply the principles of cybersecurity management. Analyze and draft cybersecurity policies; create practical approaches to risk analysis; practice techniques to prevent intrusions and attacks that threaten organizational data; and participate in exercises in cryptography, ethical hacking, and crisis management.

CMP 620 Cybersecurity Governance (6)

Prerequisite: CMP 610. Examine important human aspects of cybersecurity, such as the motivations for cybercrimes, including hacker psychology and hacker culture. Explore the legal and regulatory environments related to local, state, national, and international cybersecurity concerns. Formulate policy and conduct analysis for the prevention of intrusions, attacks, and threats to organizational data.

CMP 630 Risk Management and Organizational Resilience (6)

Prerequisite: CMP 620. Apply critical thinking and analysis to determine potential risks to the enterprise. Investigate the application of systems, tools, and concepts to minimize risk in an organization's cyberspace initiatives. Explore how to identify threats, conduct vulnerability assessments, and perform risk assessment and management. Examine system development and application assurance from a holistic viewpoint that spans the cyberspace landscapes. Gain an understanding of the value provided by regulatory, policy, and compliance guidelines in addition to pure technology options.

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CMP 640 Cybersecurity Program Development (6)

Prerequisite: CMP 630. Create a cybersecurity program using the enterprise as a framework. Examine the role of architectural methodology as part of the complete cybersecurity program. Consider the cyber threat landscape and the strategies related to incident response, awareness, and the mobile environment and its impact on government and industry. Explore identity theft, network security, cyber strategy development, and mobile device management.

Cybersecurity Technology

CST 610 Cyberspace and Cybersecurity Foundations (6)

Prerequisite: CBR 600. Gain knowledge of the foundations of cybersecurity, and apply cyber methodologies to cyber architectures, services, protocols, algorithms, hardware and software components, and programming languages. Become familiar with the important role that business continuity planning, security management practices, security architecture, operations security, and physical security play in cybersecurity. Explore the impact of cyber terrorism and national security on cybersecurity. Gain hands-on, real-world experience with state-of-the-art tools and technologies in a lab-intensive environment.

CST 620 Prevention of Cyber Attack Methodologies (6)

Prerequisite: CYB 610. Explore the theories and practices related to the prevention of cyber attacks. Design, apply, and analyze technological solutions that address countermeasures, encryption, network access control methods, firewalls, intrusion detection/prevention, and secure systems development. Practice techniques such as software assurance, verification, and validation; virtual network and cloud computing security techniques; and physical security techniques. Examine the nation's complex critical infrastructure industries. Use state-of-the-art tools and technologies in a lab-intensive environment that provide hands-on, real-world experience.

CST 630 Advanced Cyber Exploitation and Mitigation Methodologies (6)

Prerequisite: CST 620. Practice intrusion detection and prevention, exploitation, and mitigation in cyberspace. Employ technological solutions that identify, resolve, prevent, and mitigate cyber attacks. Utilize network security techniques, monitoring, auditing, intrusion detection and prevention, and ethical penetration testing. Use state-of-the-art tools and technologies in a lab-intensive environment that provides hands-on, real-world experience.

CST 640 Digital Forensics Technology and Practices (6)

Prerequisite: CST 630. Gain proficiency with the tools and technologies commonly used in forensic examinations, and utilize best practices. Explore procedures for securing and validating

evidence, including digital media and physical memory, as well as for recovering artifacts and analyzing, reporting, and presenting results in both criminal and civil situations. Gain experience with mobile forensic analysis. Students may receive credit for only one of the following courses: CST 640 or DFC 620.

Data Analytics

DATA 610 Decision Management Systems (6)

An examination of the process of decision making in large organizations and the technologies that can be used to enhance data-driven decision making. Focus is on the underlying framework of good decision making, featuring operational decisions as reusable assets that can be automated through the creation of business rules. How data can add analytic insight to improve decisions is explored. Discussion covers best practices for long-term success of an analytics project in terms of project management and communications with an emphasis on the Cross-Industry Standard Process for Data Mining (CRISP-DM) methodology.

DATA 620 Data Management and Visualization (6)

Prerequisite: DATA 610. A presentation of the fundamental concepts and techniques in managing and presenting data for effective data-driven decision making. Topics in data management and design include data design approaches for performance and availability, such as data storage and indexing strategies; data warehousing, such as requirement analysis, dimensional modeling, and ETL (extract, transform, load) processing; and metadata management. Topics in data visualization include data types; data dimensionalities, such as time-series and geospatial data; forms of data visualization, including heat maps and infographs; and best practices for usable, consumable, and actionable data/results presentation.

DATA 630 Machine Learning (6)

Prerequisite: DATA 620. A practical survey of several modern machine learning techniques that can be applied to make informed business decisions. Discussion covers supervised and unsupervised learning techniques, including naïve Bayes, regression, decision trees, neural networks, nearest neighbor, and cluster analysis. The ways each of these methods learns from past data to find underlying patterns useful for prediction, classification, and exploratory data analysis is examined. Discussion covers significant tasks in real-world applications, including handling of missing data, evaluating classifiers, and measuring precision. Major software tools are used to apply machine learning methods in a wide range of domains such as healthcare, finance, marketing, and government.

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DATA 640 Predictive Modeling (6)

Prerequisite: DATA 630. An introduction to advanced concepts in predictive modeling and techniques to discover patterns in data, identify variables with the most predictive power, and develop predictive models. Advanced statistical and machine learning algorithms such as support vector machines (SVM), regression, deep learning, and ensemble models are used to develop, assess, compare, and explain complex predictive models. Topics include high-performance modeling, genetic algorithms, and best practices for selecting methods and tools to build predictive models. Major software tools are used to apply predictive modeling in a wide range of domains for improved decision making in real business situations.

DATA 650 Big Data Analytics (6)

Prerequisite: DATA 640. An introduction to concepts, approaches, and techniques in managing and analyzing large data sets for improved decision making in real business situations. Topics include text analytics, sentiment analysis, stream analytics, AI, and cognitive computing. Discussion also covers how to identify the kinds of analyses to use with big data and how to interpret the results. Advanced tools and basic approaches are used to query and explore data using Hadoop Platform and in-memory analytical tools like Spark ML.

DATA 670 Data Analytics Capstone (6)

Prerequisite: DATA 650. Completion of a major analytics project designed to integrate knowledge and skills gained from previous coursework and provide a complete analytics experience, including problem scoping (framing), data set preparation, comprehensive data analysis and visualization, and predictive model development. Several peer-reviewed presentations are included to enhance the ability to “tell the story” and explain project approach and results. Projects are selected from student organizations, special government agency requests, or other faculty-approved sources. The project culminates in a complete analytics report and presentation.

Database Systems Technology

DBST 651 Relational Database Systems (3)

An introduction to relational databases, one of the most pervasive technologies today. Presentation covers fundamental concepts necessary for the design, use, and implementation of relational database systems. Focus is on basic concepts of database modeling and design, the languages and facilities provided by database management systems, and techniques for implementing relational database systems. Topics include implementation concepts and techniques for database design, query optimization,

concurrency control, recovery, and integrity. A foundation for managing databases in important environments is provided. Assignments require use of a remote access laboratory.

DBST 652 Advanced Relational/Object-Relational Database Systems (3)

Prerequisite: DBST 651. A continuation of the study of relational database systems, exploring advanced concepts. Topics include logical design, physical design, performance, architecture, data distribution, and data sharing in relational databases. The concepts of object-relational design and implementation are introduced and developed. Assignments require the use of a remote access laboratory.

DBST 660 Advanced Data Modeling (3)

Prerequisite: DBST 651. An introduction to fundamental concepts and techniques for successfully designing databases for structured and unstructured data. Topics include database quality techniques and relational, dimensional, and NoSQL modeling, as well as best practices for selecting methods and modeling tools to design the database models (relational, dimensional, wide column, document, and graph/RDF). Assignments require the use of a remote access laboratory.

DBST 663 Distributed Database Management Systems (3)

Prerequisite: DBST 651. An introduction to the development of distributed database management, focusing on concepts and technical issues. Survey covers distributed database management systems, including architecture, distributed database design, query processing and optimization, distributed transaction management and concurrency control, distributed and heterogeneous object management systems, and database inoperability.

DBST 665 Data Warehouse Technologies (3)

Prerequisite: DBST 651. An introduction to technology approaches for successfully designing and implementing a data warehouse for structured and unstructured data. Topics include data modeling techniques; extraction, transformation, and loading of data; performance challenges; and system tradeoffs in the development of the warehouse environment. Assignments require use of a remote access laboratory.

DBST 667 Data Mining (3)

Prerequisite: DBST 651. An overview of the data mining component of the knowledge discovery process. Data mining applications are introduced, and algorithms and techniques useful for solving different problems are identified. Topics include the application of well-known statistical, machine learning, and database algorithms, including decision trees, similarity measures, regression, Bayes theorem, nearest neighbor, neural networks, and genetic algorithms. Discussion also covers researching data mining applications and integrating data mining with data warehouses.

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DBST 668 Database Security (3)

Prerequisite: DBST 651. An overview of both the theory of and applications for providing effective security in database management systems. Topics include conceptual frameworks for discretionary and mandatory access control, data integrity, availability and performance, secure database design, data aggregation, data inference, secure concurrency control, and secure transactions processing. Models for multilevel secure databases for both relational and object-relational databases are analyzed. Assignments focus on database security concepts and require use of a remote access laboratory.

DBST 670 Database Systems Administration (3)

Prerequisites: DBST 652, DBST 663, DBST 665, DBST 667, and DBST 668. An introduction to the knowledge, skills, and tools needed to successfully administer operational database systems. The conceptual and operational tools for analysis and resolution of problems such as performance, recovery, design, and technical issues are provided. Tools used to assist in the administration process are also included.

Decisive Communication and Leadership

DCL 600 Decisive Thinking, Communicating, and Leading (6)

Prepare for academic and professional success by developing skills that employers want in their employees. Explore your area of study to learn how it connects with your career aspirations, create a professional social network presence, and use critical thinking to inform decisions. Improve and refine your skills in communication, critical thinking, quantitative reasoning, and team leadership. Hone your professional writing and oral communication skills to produce effective presentations, and become proficient with spreadsheets, collaboration tools, and other professional software.

Digital Forensics and Cyber Investigation

DFC 610 Cyberspace and Cybersecurity Foundations (6)

Prerequisite: CBR 600. Gain knowledge of the foundations of cybersecurity, and apply cyber methodologies to cyber architectures, services, protocols, algorithms, hardware and software components, and programming languages. Become familiar with the important role that business continuity planning, security management practices, security architecture, operations security, and

physical security play in cybersecurity. Explore the impact of cyber terrorism and national security on cybersecurity. Gain hands-on, real-world experience with state-of-the-art tools and technologies in a lab-intensive environment.

DFC 620 Digital Forensics Technology and Practices (6)

Prerequisite: CYB 610. Gain proficiency with the tools and technologies commonly used in forensic examinations, and utilize best practices. Explore procedures for securing and validating evidence, including digital media and physical memory, as well as recovering artifacts and analyzing, reporting, and presenting results in both criminal and civil situations. Gain experience with mobile forensic analysis. Students may receive credit for only one of the following courses: CST 640 or DFC 620.

DFC 630 Digital Forensic Response and Analysis (6)

Prerequisite: DFC 620. Utilize tools and techniques in digital forensic investigations involving workstation and mobile platforms. Practice forensic artifact reconstruction and recovery from the file systems of different operating systems, including Windows, Linux, and Macintosh.

DFC 640 Advanced Forensics (6)

Prerequisite: DFC 630. Assume the role of a digital forensics professional. Collect and preserve network, server, and cloud-based evidence, and apply analysis techniques. Solve technical challenges such as evidentiary volume and encryption, as well as nontechnical challenges such as jurisdiction and distance in situation-based response scenarios and activities.

Distance Education

OMDE 601 Foundations of Distance Education and E-Learning (3)

A study of the history and evolution of distance education. Social and political/economic factors, theories, learning and teaching models, technology and media innovations, institutions and systems, and major writers that have shaped the development of the field are critically examined. A variety of technologies are used to support the development of foundational skills that are integral to current practice.

OMDE 603 Technology in Distance Education and E-Learning (3)

Prerequisites: OMDE 601 and OMDE 610. A review of the history and the terminology of technology used in distance education. The basic technology building blocks of hardware, networks, and software are identified. Analysis covers the characteristics of asynchronous and synchronous technologies and tools used in the teaching and learning, as well as the administration, of distance education. The relationship between technology and the

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goals of the educational/training organization are critically examined. The relationship between information technology (especially online technology) and distance education is explored. Topics include the criteria and guidelines for selecting technologies for distance education and the future directions of technology in distance education.

OMDE 606 Costs and Economics of Distance Education and E-Learning (3)

Prerequisites: OMDE 603 and OMDE 608. A study of the economics of distance education in the larger context of the economics of education. A variety of methodological approaches (including cost/benefit and cost/effectiveness analyses) are applied to the distance education context. A variety of costing techniques and economic models are explored and applied to different institutional forms and levels of distance education.

OMDE 608 Learner Support in Distance Education and Training (3)

An introduction to the theories and concepts of support for learners in distance education and training. Various types of learner support, including tutoring and teaching; advising and counseling; and library, registrar, and other administrative services, are examined. Discussion addresses management issues, such as planning, organizational models, staffing and staff development, designing services to meet learner needs, serving special groups, and evaluation and applied research.

OMDE 610 Teaching and Learning in Online Distance Education (3)

An exploration of the online teaching and learning dynamic, including its theoretical foundation and best practices. The themes that shape the online teaching/learning relationship are addressed through individual and collaborative projects. Topics include philosophical frameworks; instructional, social, and cognitive presence; interaction, collaboration, and participation; community and engagement; and administration and management.

OMDE 670 Portfolio and Research Project in Distance Education and E-Learning (3)

(Formerly OMDE 690.) Prerequisites: DEPM 604 and DETT 621. A capstone study of distance education and training designed to demonstrate cumulative knowledge and skills through two major projects: an electronic portfolio and a case study. The personal e-portfolio documents credentials and accomplishments to date and also serves as an ongoing resource and record of continuing professional development. The case study, which focuses on a distance education/training program or organization, involves in-depth analysis of the setting and application of concepts and strategies to enhance practice and performance in distance education and training.

Distance Education Policy and Management

DEPM 604 Management and Leadership in Distance Education and E-Learning (3)

Prerequisites: DETT 607 and DETC 620. An introduction to the organization, management, and administration of distance education and e-learning training programs and systems. Topics include management theory and practice, organizational behavior and change, leadership roles and styles, and planning and policy. Discussion covers education and training in academic and corporate settings and the knowledge and skills necessary for a distance education practitioner to function effectively in either type of organizational environment. Assignments include individual and group case-study analyses, brief essays, and literature searches related to distance education and e-learning leadership.

DEPM 622 The Business of Distance Education and E-Learning (3)

Prerequisites: DEPM 604 and DETT 621. An examination of the highly competitive global business environment for distance education and training. Topics include the supply and demand of education services in emerging and existing markets, the competitive positioning of organizations, and increasing reliance on collaborations. Emphasis is on the skills distance education managers need in planning and developing programs, products, and services that are targeted to specific markets and cost-effective.

Distance Education Teaching and Training

DETT 607 Instructional Design and Course Development in Distance Education and E-Learning (3)

Prerequisites: OMDE 606 and DETT 611. An examination of the instructional design process, its history and place in today's course development efforts, and the use of instructional design components in practice. Emphasis is on the nature of learning and the requirements for effective instructional design in online and blended environments. The theoretical underpinnings of learning are explored and applied to the design of a prototype classroom. Management issues surrounding course and curriculum development efforts are discussed, and a comprehensive project plan is developed for design implementation.

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DETT 611 Library and Intellectual Property Issues in Distance Education and E-Learning (3)

Prerequisites: OMDE 603 and OMDE 608. An overview of the development and delivery of digital resources for distance education. Discussion covers the intellectual property issues affecting the use of copyrighted works in distance education, developing and delivering library resources online to a faculty and student population, and the future of digital information delivery and the impact of digital rights management (DRM) technologies and social networking.

DETT 621 Online Learning and Development in the Workplace (3)

Prerequisites: DETT 607 and DETC 620. An examination of distance learning and professional development in the business sector. Discussion covers various issues, problems, and solutions related to distance learning and professional development in the workplace. Topics include knowledge management, performance improvement, delivery of learning and development, and evaluating learning and development.

Distance Education Technology

DETC 620 Training and Learning with Multimedia (3)

Prerequisites: OMDE 606 and DETT 611. An overview of the use of digital media in a variety of educational settings, designed to identify properties, strengths, and weaknesses of multimedia in different learning contexts. The basic psychological processes of perception, understanding, and learning with multimedia are introduced. Focus is on multimedia and instructional design for online learning systems, such as learning management systems or stand-alone learning objects. Hands-on experience with several multimedia applications is provided. Topics include collaborative learning technologies, open educational resources, the impact of multimedia on learning outcomes, methods of multimedia evaluation, quality assurance, and project management of e-learning initiatives.

Education: Instructional Technology

EDTC 600 Foundations of Technology in Teaching and Learning (3)

An introduction to the integration of technology in schools, focusing on how instructional technology affects and advances K–12 learning. Topics include principles of integrating technology to

strengthen standards-based curricula, instruction, and assessment; selection of software and other technological materials; uses of technology for collaboration with school-related audiences; issues of digital equity and ethics; and strategies for using digital technology with special needs populations.

EDTC 605 Teaching Information and Media Literacies in the Digital World (3)

Prerequisite or corequisite: EDTC 600. A study of the expanding types of literacies required for teaching and learning in K–12 schools, with a concentration on digital information and media literacies. Analysis of core information literacy skills serves as the foundation for a discussion of the effects of current and emerging media on the evaluation and creation of knowledge. Topics include the effective use of online databases and search engines to access information and media resources; application of the research process; information and media literacy skills needed for reading and navigating the web environment and creating new content; options for age-appropriate, subject-specific research assignments that involve K–12 students in project-based learning; and issues related to ethical uses of information and digital citizenship across literacies.

EDTC 610 Web-Based Teaching and Learning: Design and Pedagogy (3)

Prerequisite: EDTC 600; prerequisite or corequisite: EDTC 605. An examination of the theory that informs web-based education and the implementation of best pedagogical practices. Challenges related to the original design and/or adaptation of effective web-based instruction are explored. Focus is on developing the knowledge and skills to create multiple types of web-based assignments and units for K–12 students using web authoring software. Topics also include constructing evaluation tools to assess K–12 student learning outcomes across different content areas and grade levels. Strategies for effective online group collaboration are discussed and implemented.

EDTC 615 Using Technology for Instructional Improvement: Research, Data, and Best Practices (3)

Prerequisite: EDTC 605; prerequisite or corequisite: EDTC 610. Overview of systematic planning, development, and evaluation of media-rich classroom instruction. Research and assessment data are analyzed for their use in promoting student learning and technology integration. Collecting, summarizing, analyzing, and applying assessment data to classroom improvement with techniques for organization and participation in a grade-level or school-wide collaborative team are included.

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EDTC 620 Technology in K–12 Education: Synchronous, Asynchronous, and Multimedia Technologies (3)

Prerequisite: EDTC 610; prerequisite or corequisite: EDTC 615. A study of various technologies to assist teachers in strengthening content delivery and K–12 student learning. Focus is on designing and developing instructionally effective visual materials and multimedia for incorporation into the classroom. Examples include presentations, graphics, and a classroom website with instructional and administrative components. Knowledge and skills are also developed in the educational applications of real-time technologies that enable video- and audio-conferencing in classroom and schools.

EDTC 625 Hardware and Software in Instructional Development (3)

Prerequisite: EDTC 615; prerequisite or corequisite: EDTC 620. A study of the application of hardware and software programs in K–12 classroom and school settings. Various operating systems and network issues commonly found in schools are examined. Topics include a wide range of instructional software packages related to specific subjects and grade levels, assistive technologies appropriate for different student needs, and free Web 2.0 tools for classroom instruction and professional growth. Discussion also covers hardware and software choices compatible with curricular goals and troubleshooting strategies—both technical and instructional—for teachers and students. Research on specific hardware and software is analyzed. Emerging technology-enabled curricular innovations are also examined.

EDTC 630 Administration of Technology Initiatives: Planning, Budgeting, and Evaluation (3)

Prerequisite: EDTC 620; prerequisite or corequisite: EDTC 625. An overview of the administration of technology in K–12 school systems. The impact of technology in schools is explored from a variety of perspectives, including access, planning, budgeting, maintenance, and life cycle management at the classroom, school, and district levels. Criteria for making financial and instructional decisions about technology are developed and evaluated. Emphasis is on knowledge and skills teachers can use to acquire classroom technology, including grant writing and public-/private-sector partnerships.

EDTC 640 Leading Technology Change in Schools (3)

Prerequisite: EDTC 625; prerequisite or corequisite: EDTC 630. An overview of the theories, approaches, and strategies that help teachers assume leadership roles in implementing technology change in K–12 schools. Topics include the role of change agents in K–12 schools, strategies to meet the needs of technologically unskilled teachers, tools and techniques to respond to diverse

competency levels, and various training models and approaches for adult learners. Structured observation is employed to critically assess the effectiveness of various technology training formats. In a guided project, a technology-training seminar is designed, developed, and implemented for delivery to colleagues.

EDTC 645 Integration of Technology: Global Perspectives (3)

Prerequisite: EDTC 630; prerequisite or corequisite: EDTC 640. Exploration of global perspectives on advancing K–12 student learning through technology. Investigation covers how schools design innovative units and programs that take full advantage of technology's ability to reach beyond national borders and promote global understanding and how various nations approach the challenge of technology integration in the schools. Focus is on evaluating best practices in the United States and other nations and on analyzing the role of policy in shaping the way resources are deployed to advance effective technology integration. Projects include designing models for integrating global understanding into curriculum and instruction, developing case studies of technology integration in various countries, and evaluating relevant research.

EDTC 650 Teaching and Learning in K–12 Virtual Schools (3)

Prerequisite: EDTC 640 or DETC 620. An introduction to K–12 distance education, including the policies and structures of K–12 virtual schools, teaching and course development strategies appropriate for K–12 online courses, and current issues involved in the K–12 virtual enterprise. Emphasis is on K–12 schools that offer courses online; discussion also covers principles that apply to other forms of K–12 distance education, such as television and correspondence courses. Topics include different models of current K–12 virtual schools; district, state, and national regulations governing these schools; role of parental involvement and student support systems; social and collaborative aspects of learning at a distance; and training and mentoring of online K–12 teachers. Trends in international K–12 virtual schools are compared with those in the United States. The effectiveness of virtual schools and courses at the elementary and secondary school levels are explored.

EDTC 670 Integrative Capstone Project (3)

(Intended as the final course in the MEd program.) Prerequisites: First nine courses in the program; may be taken concurrently with EDTC 645 or EDTC 650. A self-directed project, in which teachers collaborate with colleagues within or across grade levels or departments to incorporate innovations into their curricula. A portfolio is built to demonstrate the development, implementation, and outcomes of the project. Study is designed to provide teachers the opportunity to apply knowledge and skills gained from previous coursework.

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Education: Teacher Preparation

EDTP 600 Foundations of Teaching for Learning (6)

Preparation for effective entry into the classroom as a teacher. Topics include teaching in the contemporary school; human development; approaches to learning, diversity, and collaboration beyond the classroom; learners with exceptional needs; curriculum, instruction, and assessment; teaching in the content area; and synthesis and application. Course materials and assignments focus on documents created and/or typically utilized by school systems and incorporate current school district initiatives. School district personnel may participate as guests.

EDTP 635 Adolescent Development and Learning Needs (6)

Prerequisite or corequisite: EDTP 600. Preparation to support the unique development of adolescents from various backgrounds, with varying beliefs and abilities. Learners are examined from the standpoint of developmental characteristics; social, cultural, racial, and gender affiliation; socioeconomic status; religious influences; learning styles; special needs; and exceptionality. Adolescents are also examined from biological, psychological, cognitive, and social perspectives; within the tapestry of their family and community; and through the influences of societal and cultural norms. Discussion covers theories and concepts associated with human growth and development across the lifespan, focusing on the typical and atypical development of the adolescent.

EDTP 639 Reading and Multiple Literacies (6)

(Formerly EDRS 610.) Prerequisites: EDTP 600 and EDTP 635. A study of the essentials of literacy for middle and high school classrooms, including design principles for guided inquiry, self-directed learning, collaboration, and effective use of media to meet the needs of diverse learners in the 21st century. Discussion covers purposes and types of reading, assessment, cognitive strategies in reading, reading strategy instruction for constructing meaning from text, and intrinsic and extrinsic motivational strategies. Topics include essential competencies for teaching and learning content area reading and the new literacies and for applying and adapting them to diverse learners and learners with exceptionalities. Competencies developed include use of evidence-based instructional strategies, formative and summative assessment, critical thinking, technology as a tool for learning, and literate environments. Focus is on the importance of research, collaboration, and self-assessment for the professional development of teachers.

EDTP 645 Subject Methods and Assessment (6)

Prerequisites: EDTP 600 and EDTP 635; prerequisite or corequisite: EDTP 639. An introduction to instructional strategies and curriculum for teaching secondary content that emphasizes effective instruction based on understanding assessment and how assessment informs effective instruction. Topics include development of comprehensive assessment strategies and their interrelationships with creation of learning objectives, selection of instructional techniques, and preparation of instructional plans. Current trends in secondary school structures, issues of traditional and authentic assessments, and teacher effect on student achievement are explored. Focus is on meeting individual needs and using content knowledge to inform instructional practice by drawing on knowledge gained through previous study and knowledge bases that reflect current research and best practices in secondary content areas.

EDTP 650 Professional Internship and Seminar (6)

Prerequisites: EDTP 600, EDTP 635, EDTP 645, and EDTP 639. An opportunity to apply the concepts, techniques, methods, and theories learned in previous coursework and field-based experiences through a professional internship. Internship activities require completing observations, activities, and clinical practice in an approved secondary classroom appropriate for the selected content area certification, under the supervision of a school-based mentor teacher and a university field supervisor. An ongoing seminar establishes a learning community that assures a continuing support system and provides a forum for feedback and discussion of common readings, experiences, questions, and issues. An electronic portfolio is completed.

Emergency Management

EMAN 600 Comprehensive Crisis and Emergency Management (3)

An analysis of all hazards, phases (mitigation, preparedness, response, and recovery), and actors involved in crisis and emergency management. Discussion covers the definition of crises, emergencies, and disasters and concepts and issues in crisis and emergency management. Focus is on developing crisis, contingency, and incident management plans. Current frameworks, management systems, and command systems for organizing a response, deploying resources, managing the response organization, supporting crisis communication, and making decisions in a turbulent environment are examined. Topics are discussed from U.S. and international perspectives.

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EMAN 610 Hazard Risk and Vulnerability Assessment (3)

An examination of risk, hazard, and vulnerability. Topics include systematic hazard risk assessment, risk mitigation (reduction), risk transfer, and risk analysis. Discussion covers contemporary approaches to risk assessment and management of naturally or technologically induced hazards. Environmental hazard assessment is also examined. Seminal works published in the area are reviewed.

EMAN 620 Information Technology in Emergency Management (3)

An overview of the role of information in crisis and response management. Discussion covers disaster and crisis information requirements; information technologies and decision support tools applied to crisis, disaster, and emergency management; and information problems encountered during emergencies. Tools used include the global positioning system (GPS), geographical information systems (GIS), UAS (drones), and hazard and emergency management-related software packages, as well as decision analysis methods. Assignments include practical case studies.

EMAN 630 Crisis Communication for Emergency Managers (3)

An exploration of current strategies and tactics for managing the range of communication responsibilities and issues that arise during a variety of crisis situations. Traditional and new media methods for analyzing crisis and communications management issues (including the use of current technologies) are applied using relevant public relations research, theory, and case examples. A strategic approach is used to better identify issues, goals, stakeholders, messaging, and other aspects involved in developing community-specific public responses to crisis situations.

EMAN 670 Seminar in Emergency Management Leadership (3)

An examination of the role, mission, and functional skills of the emergency manager that compares and contrasts current aspects with evolving trends. Factors that affect successful leadership in emergency management, such as managing crises, disasters, and emergencies through discussion of key issues and analysis of selected case studies, are explored. Discussion covers the evolving multidisciplinary nature of the emergency manager's job and characteristics and leadership styles most effective in emergency management. Summary reviews of various theories, models, historical examples, and practical applications are used to reflect the central activities of emergency managers and gain a better perspective on the emergency manager's job. Topics include planning, risk assessment, crisis communications, organizational and operational issues, problem solving, overcoming bureaucratic barriers to effective performance, promoting a culture of disaster prevention and

preparedness, advising on business continuity strategies, acquiring resources, staff training, and emergency exercises. Ethics and legal issues in emergency management, the procurement of facilities, staff management, and controversies are also examined.

Environmental and Waste Management

ENVM 600 Fundamentals of Environmental Systems (3)

(For students lacking a strong science background or experience in the environmental field.) An introduction to the basic concepts of environmental chemistry, physics, geology, and risk. Topics include the gaseous, liquid, and solid effluents from various industrial activities, as well as management methods and the statutory and regulatory requirements of major federal environmental laws affecting this management. Discussion also covers fundamental principles relating to the transport and fate of contaminants and industrial wastes and the basic vocabulary of the field.

ENVM 610 Environmental/Energy Law and Policy Development (3)

An examination of U.S. environmental and energy law and policy, including its development, implementation, and enforcement; legislative, executive, and judicial perspectives; and the roles and impact government institutions have made on environmental and energy law and policy. Leading laws and their ensuing policies, such as the National Environmental Policy Act, the Clean Air Act, the Clean Water Act, the Resource Conservation and Recovery Act, the 1992 National Energy Policy Act, the FDR-era Federal Policy Act, the Public Utility Holding Company Act, and the Carter-era Public Utility Regulatory Policy Act, are examined.

ENVM 641 Environmental Auditing (3)

An examination of methods for attaining statutory, regulatory, and permitting compliance. The protection of workers and other stakeholders is also examined in the context of organizational, budgetary, and other constraints. Emphasis is on methods of defining auditing objectives to meet organizational goals and of designing auditing programs for effective compliance under each of the 12 major environmental statutes, including air, water, solid, and hazardous waste management laws and pollution prevention initiatives.

ENVM 643 Environmental Communications and Reporting (3)

An overview of U.S. environmental regulations and the reporting requirements of these regulations, an understanding of which is critical to success in the environmental field. Topics include toxic release inventories, risk management plans, environmental management systems, and radiation. Discussion also covers

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communicating with a wide range of stakeholders and the news media, public speaking, and corporate social responsibility. Focus is on the skills and knowledge needed for a career in environmental management.

ENVM 644 New Technologies in Environmental Management (3)

An overview of the role new technology plays in environmental management as examined from the perspectives of science and policy. Discussion examines when an emerging technology becomes conventional and covers examples of new technology related to informatics and data management; ISO 14001; energy efficiency; the prevention, monitoring, and remediation of air, surface water, groundwater, and soil; and biotechnology. Topics also include technical, financial, and policy enablers and barriers to emerging technology.

ENVM 647 Environmental Risk Assessment (3)

An overview of the basic concepts of risk assessment. Topics include the four core parts of a risk assessment, as denoted by the National Academy of Sciences: hazard assessment, dose-response assessment, exposure assessment, and risk characterization. Methods of measurement and modeling are discussed, along with key questions concerning uncertainty. Differences in the risk characterizations of substances under different use conditions and legal requirements are studied. Significant case studies serve to illustrate the assessment process.

ENVM 649 Principles and Practices of Waste Management (3)

A study of waste management, an environmental field with a long history and legacy of mismanagement. Topics include current cleanup realities and the practicalities of compliance with current requirements. Discussion examines the current regulatory schema for dealing with hazardous, solid, and specialty wastes, especially subtitle C of the Resource Conservation and Recovery Act (RCRA); cleanup options, including those covered by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Brownfields Utilization, Investment, and Local Development (BUILD) Act; and potential options for sustainable futures.

ENVM 650 Environmental and Natural Resources Economics (3)

An introduction to microeconomic principles as they relate to the efficient use of environmental resources and their impact on local, national, and global environmental policies. Topics include an overview of microeconomic principles and economic efficiencies, market failures, externalities, property rights, pollution damage and abatement costs, benefit and cost analysis, valuation methods, environmental policy analysis, federal control policies, and international issues.

ENVM 651 Water Resources Management (3)

An in-depth examination of the dynamics and challenges of integrated water resources planning, development, distribution, and management in the 21st century. Focus is on river basins and watersheds, such as the Chesapeake Bay Watershed or the Upper and Lower Colorado River Basins. Discussion covers the quality, quantity, optimum uses, and governance of water resources, as well as the role of paradigms in affecting water policy-making behaviors, institutions, and systems. Topics also include the impact of climate change and global warming on water resources management and planning; determinants of climate change resilience, especially the role of adaptive technologies; and the use of market-driven mechanisms to meet water quantity and quality management challenges under climate change.

ENVM 652 Principles of Air Quality Management (3)

An overview of management techniques for addressing air quality issues and managing air quality programs. Topics include air pollution law; air pollutants and their sources; effects of air pollution on health and welfare; sampling and analysis of air pollutants; standards, regulations, and enforcement systems; and quality assurance principles.

ENVM 653 Land Use Management (3)

An introduction to the powers, process, and practice of managing the patterns and land use implications of human settlement and the built environment. Topics include where to build, where not to build, how to build, and when to build. Discussion also covers the settlement history of the United States, as well as the constitutional and legislative mandates for government, private-sector participants, and institutions that shape land use policy. Emphasis is on the role of local government. Land use and environmental community planning, as well as best practices in land use management, are examined.

ENVM 670 Capstone Study in Environmental Management (3)

Prerequisite: Completion of 27 credits of program coursework. An intensive hands-on study of environmental management that integrates knowledge gained from previous coursework and applies that knowledge to projects with external sponsors on environmental problems. Review covers issues such as environmental management systems, sustainability, environmental policy, the role of senior management, activity-based costing, and life-cycle analysis. A specific environmental problem (e.g., sustainability, wastewater management, hazardous waste disposal, need for alternative energy), defined by an external sponsor, is addressed by small teams. Projects involve organizing and planning the work, conferring regularly with sponsors, developing an outline for the final work product, collecting data and information, preparing a final report, and presenting a briefing to the sponsor organization.

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Financial Management

FIN 610 Financial Management in Organizations (3)

(For students in an accounting or financial management specialization or program.) Prerequisite: MGMT 640. An investigation of financial management theory and applications in organizations. Discounted cash flow and rate-of-return analyses are used to evaluate projects and financial instruments. Discussion covers the role of the cost of capital and the Capital Asset Pricing Model (CAPM) in capital investment analysis and selection. Capital budgeting, stock and bond valuation, break-even analysis, capital market efficiency, real options, short-term financial management, and international finance are introduced.

FIN 615 Financial Analysis and Modeling (3)

Prerequisite: FIN 610. An exploration of how financial managers use financial modeling, analysis, and research to build forecasts and projections, evaluate financial alternatives, and support financial decision making in both operational and strategic contexts. Models are developed using Microsoft Excel; exercises and extended case studies are utilized to interpret and employ results. Topics include financial statements and ratio analysis, cash flow forecasting, operations budgeting, breakeven and leverage analysis, time value of money applications, and capital budgeting and risk assessment.

FIN 620 Long-Term Financial Management (3)

Prerequisite: FIN 610. An exploration of the long-term financial needs of an organization and the roles of the capital markets. Topics include the financial environment of organizations, options and futures instruments, long-term financing, the capital budgeting decision process, capital structure management, dividend and share repurchase policy, and investment banking and restructuring. Various types of long-term funding sources—including term loans, derivatives, debt and equity securities, and leasing—are analyzed. Alternate policies related to financial leverage, capital structure, dividends, and the issuance of preferred stock are evaluated. Mergers, leveraged buyouts, and divestitures are examined as special situations to create value.

FIN 630 Investment Valuation (3)

Prerequisite: FIN 610. An in-depth exploration and application of valuation models to support managerial decision making in a strategic framework. The theory, concepts, and principles underlying the valuation of firms, business/product lines, and mergers and acquisitions are addressed using extended exercises and applications. The discounted cash flow model is used as a tool. Discussion covers the financial drivers of value, including assessing and determining risk, competitive advantage period, and sales and earnings growth estimates. Other valuation techniques using earnings, revenues, and price/earnings multiples are also discussed and applied in selected examples.

FIN 640 Multinational Financial Management (3)

Prerequisite: FIN 610. A study of financial management issues in multinational organizations. Topics include the environment of international financial management, foreign exchange markets, risk management, multinational working capital management, and foreign investment analysis. The financing of foreign operations, international banking, and the role of financial management in maintaining global competitiveness are also considered.

FIN 645 Behavioral Finance (3)

Prerequisite: FIN 630. A study of the key psychological obstacles to value-maximizing behavior and steps that managers can take to mitigate their effects, using the traditional tools of corporate finance. Focus is on understanding the underlying factors and processes that result in nonoptimal decision making by financial managers. Topics include perceptions about risk and reward and financial decision making in the areas of investing, trading, valuation, capital budgeting, capital structure, dividend policy, agency conflicts, corporate governance, and mergers and acquisitions. The key role played by emotions and recent findings from neuroscience are explored.

FIN 660 Strategic Financial Management (3)

Prerequisites: FIN 610, FIN 620, and FIN 630. An integrative study of financial management through applied problems and case studies. Topics reflect the changing environment of financial management in organizations and include capital investment decision making, the role of intangibles in value creation, financial performance metrics, strategic financial planning and control, strategic valuation decisions, growth strategies for increasing value, the restructuring of financial processes, corporate governance and ethics, value-based management, strategic cost management, and the impact of information technology on the organization's financial systems. A finance simulation is used as an integrating mechanism.

Global Health Management

GHMT 610 Perspectives on Global Health (3)

(Offered as part of a joint program with University of Maryland, Baltimore.) An overview of the field of global health, including analysis and response to major global health challenges and international policies. Focus is on analyzing national and transnational health trends, including major communicable and noncommunicable disease burdens. The World Health Organization (WHO) and other international health interventions that address the determinants of health and disease and current and emerging global health priorities, such as disaster relief and infectious diseases,

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are assessed. Discussion covers the application of key legal issues, ethics, and models of reform to global health programming. Skills are developed in analysis, leadership, teamwork, and communication in a global context.

GHMT 620 National and International Approaches to Healthcare Delivery (3)

(Offered as part of a joint program with University of Maryland, Baltimore.) A project-based application of the concepts, theories, and principles of global health to the practical challenges facing global health professionals. Assignments focus on a specific global health priority for a given national or geopolitically defined population. Needs assessment methodologies, including epidemiological methods; mapping local, national, and global policy processes; identifying strategies for building infrastructure and workforce capacity; analyzing financial opportunities and limitations; and assessing the impact of macro changes in the global economy, political environment, and human rights and legal systems, are applied. Findings regarding the scope, options, and outcomes of these assessments, as well as a recommended action plan for improving the health status of the population group of interest, are summarized in the final project.

GHMT 630 Strategic Management of Global Health Services (6)

(Open to students in the joint UMGC-UMB program only). The development of strategic management skills for growing and operating health organizations and health systems in low- and middle-resourced countries. Focus is on building strategies for organizing global health prevention, treatment, care, and capacity-building initiatives. Strategic management skills are applied to create global health missions and goals, core functions and organizational structures, clinical and administrative workforces, budgets and financing, and communication messages.

Healthcare Administration

HCAD 600 Introduction to Healthcare Administration (3)

An introduction to the principles of management and leadership as the foundations for the administration of healthcare products and service delivery. The evolution of management principles and practices are traced and the bases for healthcare administration are analyzed. Emphasis is on the management of global healthcare systems in technological societies and the need for innovation and creativity in healthcare administration. Focus is on mastering graduate-level critical thinking, writing, and ethical decision-making skills.

HCAD 610 Information Technology for Healthcare Administration (3)

An overview of information technology (IT) from a managerial perspective and how healthcare administrators can use IT to maximize organizational performance. Fundamental principles of IT and data management and their implications for healthcare administrators are reviewed. Discussion explores the use of technology, databases, and other analytical tools to structure, analyze, and present information related to healthcare management and problem solving. Topics also include strategic information systems planning, systems analysis, system design, evaluation, and selection. Current applications, such as patient care, administrative and strategic decision support, managed health, health information networks, and the internet are examined to determine how they may be used to meet the challenges facing healthcare administrators today and in the future. Focus is on the legal and ethical issues related to IT and their practical implications for the healthcare administrator.

HCAD 620 The U.S. Healthcare System (3)

A comprehensive examination of the complex, dynamic, rapidly changing healthcare system in the United States. The healthcare system's major components and their characteristics are identified. Emphasis is on current problems in healthcare financing and delivery. Social, economic, and political forces that have shaped and continue to influence the system are traced. The healthcare system in the United States is compared with systems in industrialized and developing nations. Analysis covers current trends in healthcare and prospects for the future.

HCAD 625 The Business of Healthcare (3)

Prerequisite: HCAD 620. A detailed exploration of operational issues unique to the dynamic and highly regulated realm of healthcare. Discussion covers challenges presented by regulatory mandates, market forces, and multiple interconnected matrix organizations, as well as defining and meeting the needs of the community.

HCAD 630 Public Health Administration (3)

An in-depth study of the field of public health, emphasizing leadership and management. The current U.S. public health system is analyzed, focusing on federal, state, and local public health entities and their management issues. Connections and relationships between the system of public health and the private personal health services market are also analyzed. Topics include the history and current status of public health, core functions, legislation, ethics, accountability (including assessment and evaluation), and the politics and financing of public health, particularly in light of the increased utilization of evidence-based budgeting. Contact with a public health agency in order to analyze a public health program or policy may augment text and lecture presentation.

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HCAD 635 Long-Term Care Administration (3)

A study of the different components of the long-term-care service delivery system. Topics include residential settings (such as skilled nursing facilities, assisted living facilities, and continuing care retirement communities), home care services, community-based service programs, and hospice care. The goal is to apply contemporary management theory, concepts, and models to the entities that make up the long-term-care service delivery system. Specialized case studies are used to supplement course materials and examine best practices for fostering performance excellence.

HCAD 640 Financial Management for Healthcare Organizations (3)

An in-depth study of healthcare economics and the financial management of healthcare organizations. The economic principles underlying the American healthcare market and the financial management of health services organizations within that market are examined. Analysis covers free market and mixed market economies; barriers to free market economies; healthcare industry regulation, licensure, and certification; and various coverage and healthcare payment mechanisms. Topics also include reimbursement mechanisms and their effect on healthcare provider organizations, managed care, capitation, and per case or per diagnosis payment, as well as how these financial strategies are utilized by third-party payers. Focus is on financial challenges, such as uncompensated care, cost increases, increased competition, and increased regulation, and how healthcare providers should respond to them. Ratio analysis, cost analysis, working capital, capital budgeting and investment in relation to net present value and value added to the organization, and other financial management techniques are also explored.

HCAD 645 Strategic Financial Management in Healthcare (3)

Prerequisite: HCAD 640. An in-depth study of the concepts and competencies needed to plan the usage and management of enterprise financial resources to achieve long-term organizational objectives and return maximum value in a volatile healthcare finance environment. Emphasis is on identifying and quantifying available or potential resources, devising a plan for utilizing finances and other capital resources to achieve goals, and capital budgeting and management. Topics also include risk analysis, multiple financing methods, supply chain costs, valuation, and mergers and acquisitions. Current accounts and working capital management are explored, as are strategic planning and financial forecasting.

HCAD 650 Legal Aspects of Healthcare Administration (3)

A comprehensive analysis of the more significant legal issues encountered by healthcare administrators and the ramifications of those issues. Both theoretical and practical applications of law

are addressed with an analytical focus on the prompt identification of legal and bioethical issues arising from and affecting various healthcare employment settings. The intersection of law, ethics, and bioethics is scrutinized in various contexts. The principles of healthcare law in a complex constitutional system are examined in relation to current proposals and policy developments in areas such as privacy, contracts, tort reform, and the regulation of the healthcare marketplace. Topics include legal and regulatory constraints imposed on the healthcare industry, the liability of healthcare providers, the rights of patients, employment law and labor relations, and administrative law for healthcare organizations.

HCAD 660 Healthcare Institutional Organization and Management (3)

A study of the nature of management and how it is applied in various healthcare settings. Contemporary theories, critical perspectives, models, and best practices designed to foster performance excellence in the highly competitive healthcare environment are examined. Discussion also addresses the complexities and challenges of health systems.

HCAD 665 Strategic Issues in Healthcare Leadership (3)

Prerequisite: HCAD 660. An examination of strategic issues driving the future of healthcare. Focus is on identifying and preparing to meet the needs of changing communities, integrating rapid technological and scientific advances, and ensuring institutional viability. Topics include developing and disseminating strategic goals and shaping organizational values.

HCAD 670 Healthcare Administration Capstone (3)

Prerequisite: Completion of 36 credits of program coursework. A capstone study of healthcare administration that integrates knowledge and skills gained from previous study in the development of a systems approach to healthcare administration. Focus is on public and private healthcare delivery systems, alliances with internal and external environments, and strategic decision making and implementation in the rapidly evolving global arena of healthcare administration.

Health Informatics Administration

HIMS 650 Research Methods for Healthcare Managers (3)

(Formerly HAIN 650.) The application of basic statistics and research methods from the health informatics/information and healthcare administration perspective. Emphasis is on the analysis of clinical and administrative data to assist in decision making; healthcare planning; research; reporting to local, state,

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and national entities; and policy development. Topics include institutional review boards, ethics in research, the research process, epidemiology, case mix, vital statistics, registries, interpretation and presentation of data, data collection, and quality outcomes and measures. Students may receive credit for only one of the following courses: HAIN 650 or HIMS 650.

HIMS 655 Health Data Management (3)

(Formerly HAIN 655.) A foundational overview of health informatics/information management as a profession and as a subset of the healthcare delivery system. Health informatics/information principles and practices are explored as they relate to the application, analysis, management, and architecture of health data. Topics include data mapping, data structures, clinical terminology, and classification systems. Discussion also covers ICD-10, health record content, documentation standards, data management policies and procedures, meaningful use, data sources, and information governance.

HIMS 661 The Application of Information Technology in Healthcare Administration (3)

(Formerly HAIN 661.) Prerequisite: HIMS 655. An overview of historical, current, and emerging health information systems and technologies. Focus is on applying a system life-cycle process to the adoption of an electronic health record system. Discussion covers various ways that information technology can aid in operations management and the strategic decision-making process. Topics include project management, clinical and decision support systems, report generation, data analytics, workflow processes, health information exchange, enterprise information management, training and development, data quality, user interfaces, data capturing technologies, personal health records, population health, data safeguards, business intelligence, and artificial intelligence.

HIMS 670 Health Informatics Administration Capstone (3)

(Formerly HAIN 670.) Prerequisite: Completion of 30 credits of program coursework, including HIMS 650, HIMS 655, and HIMS 661. Review of the proficiencies and competencies of a registered health information administrator (RHIA) as preparation for taking the RHIA certification exam. Emphasis is on professional development and test-taking strategies. An evidence-based capstone project on a topic related to health informatics or health information requires the integration and application of knowledge and skills acquired through previous coursework and experience. Discussion covers informatics issues, challenges for U.S. and global healthcare systems, potential new healthcare delivery models, approaches to strategically shaping local and national informatics policy, and the role of information technology in supporting the full continuum of care in health organizations. Tools and methods for strategic planning, implementing, using, and evaluating the efficacy of information systems are explored.

Homeland Security Management

HSMN 610 Concepts in Homeland Security (3)

An overview of the basic concepts of homeland security, including infrastructure protection, jurisdiction, and issues in technical areas such as interconnectivity and interoperability. The nation's telecommunications and information technology networks are examined as both vulnerable assets and critical solutions.

HSMN 620 Physical Security (3)

A comprehensive study of the many interdependent elements involved in protecting human-made structures from direct or indirect physical and cyber attacks. Various factors that affect physical security (including construction materials, architectural design, location, function, occupancy, and life-cycle management) are examined. Accessibility, access control, traffic patterns, and internal and external communications are analyzed. Review covers methods for protecting critical infrastructure support systems, such as electric power, water supply, airflow, and information systems. Typical security policies and procedures for various categories of physical facilities (such as those involved in power generation, finance, and telecommunications) are also evaluated.

HSMN 625 Critical Infrastructures (3)

Prerequisite: HSMN 610. An introduction to critical infrastructure assurance as a policy field. Review covers the concept of critical infrastructures and their interdependencies. Topics include the development of modern critical infrastructures, the reasons they have become central elements of 21st century societies, efforts being made to safeguard them, and potential threats to their continued effective operation.

HSMN 630 Resilience Planning and Preparedness for Disaster Response and Recovery (3)

An in-depth examination of managerial strategies for developing and maintaining resilience in communities, the private sector, and the nation in the face of human-made, natural, and technological disruptions or catastrophes. Emphasis is on the importance of advanced planning. Techniques for performing risk assessments and potential impact analyses and for selecting appropriate risk treatments are explored. Discussion covers preparing to handle adverse events, responding to them, and recovering from them. Resilience management is explored within the context of a life cycle that includes programmatic review and continuous improvement planning. Actual and hypothetical cases are analyzed.

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HSMN 640 Energy Infrastructure Security (3)

Prerequisite: HSMN 610. An in-depth exploration of the energy sector and homeland security, including resources, critical infrastructure protection, and vulnerabilities. Topics include pipeline security, security of the electrical grid, cyber-dependence, and SCADA (supervisory control and data acquisition). Focus is on understanding risk methodologies as applied to the energy industry. Energy is evaluated as a national security issue.

HSMN 670 Seminar in Homeland Security (3)

(To be taken during the student's final semester.) Prerequisite: Completion of 24 credits of program coursework, including HSMN 610, HSMN 620, HSMN 630, EMAN 620, INFA 660, and BSBD 641. An up-to-date evaluation of vulnerabilities and protective countermeasures regarding various aspects of the nation's critical infrastructure, with emphasis on the food and water supply. Topics include various threat profiles and actions by government, industry, independent institutions, and private citizens that might prevent attack from domestic or foreign sources and mitigate harmful consequences should such an attack occur. Discussion reviews the federal government's organization and management of food and water security and explores what further efforts might be made, building on the nation's health system and engaging government at all levels. The singularly important roles of first responders are also analyzed.

Human Resource Management and Development

HRMD 610 Issues and Practices in Human Resource Management (3)

(Strongly recommended as the first course in the human resources management specialization.) An overview of the human resource management profession, including the theories, research, and issues related to human resource management within modern organizations. The roles, responsibilities, relationships, functions, and processes of human resource management are discussed from a systems perspective. Expectations of various stakeholders, such as government, employees, labor organizations, staff/line management, and executive management, are explored. The general legal principles and provisions that govern human resource activities are examined in depth. The specialty areas of employee relations, staffing, human resource development, compensation, and organizational development are described. Current topics, such as human resource information systems and globalization, are addressed.

HRMD 620 Employee and Labor Relations (3)

An investigation of the rights and responsibilities of employees and organizations in union and nonunion environments in the United States. The federal legal framework for collective bargaining is reviewed. Topics include common employment contract trends, topics, and issues, as well as all phases of unionization, from organizing through contract maintenance. Emphasis is on conflict management, negotiation, and alternate dispute resolution.

HRMD 630 Recruitment and Selection (3)

An examination of the initial phases of staffing, focusing on the hiring process. The contemporary roles, relationships, and processes of recruitment and selection in the human resource management system are investigated. Emphasis is on productivity factors (such as the use of technology) and quality factors (such as legal, ethical, and validity issues). Topics include international and domestic concerns, as well as multiple staffing levels (such as executive managers and temporary employees). Current issues in private, not-for-profit, and/or public sectors are discussed.

HRMD 640 Job Analysis, Assessment, and Compensation (3)

A study of the interrelated aspects of human resource management, including job design, job analysis, job evaluation, employee compensation, incentives to productivity, employee motivation, and performance appraisal. A variety of approaches for analyzing, weighing, and specifying the detailed elements of positions within modern organizations are presented. Discussion covers techniques for identifying and classifying the critical components of a job, defining the observable standards and measures, preparing and determining the job description and job worth, establishing equitable compensation for job performance, and developing an executive compensation program. The interaction of compensation, worker motivation, performance appraisal, and level of worker performance within the organization is examined.

HRMD 650 Organizational Development and Change (3)

A study of the issues, theories, and methodologies associated with organizational development and the management of change, with an emphasis on organizational culture and organizational change processes. Topics include the diagnostic process, intervention strategies, and overcoming resistance to change. Techniques such as goal setting, team-development procedures, productivity and strategy interventions, and interpersonal-change models are examined.

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HRMD 651 Current Perspectives in Training and Development (3)

An examination of the theories, research, skills, and issues related to one major aspect of human resource development, the management of organizational training services. The role of training in the workplace and adult learning models are investigated. Topics include curriculum management, program development, and operation management with an emphasis on design and delivery issues. The impact of technology, the global environment, and modern organizational structures are considered. Ethical issues are also discussed. Assignments include the development of training proposals or programs.

HRMD 665 Managing Virtual and Global Teams (3)

An investigation of the foundations of team development and performance from a human resource management and organizational behavior perspective. Focus is on maximizing the effectiveness and efficiency of global and virtual teams in organizations. Topics include the impact of global diversity and use of technology on intergroup development, communication, and outcomes. Scholarly research and field literature are examined, and the implications of the findings for applied management are discussed.

Informatics

IMAT 637 IT Acquisitions Management (3)

A study of management practices related to the acquisition of IT systems, components, and services. Emphasis is on the importance of enterprise strategic planning and the concomitant IT strategic planning. Issues related to the development of the IT acquisition plan, financial planning and budgeting, integration of the proposed acquisition within the overall goals of the enterprise, and related IT program management are examined in the context of overarching management challenges. Federal IT systems, contract and procurement policies, and procedures provide examples for analysis of concepts with wider relevance.

IMAT 639 Internet Multimedia Applications (3)

A study of multimedia presentations as essential, strategic components of an organization's competitive web presence. Established principles of software development, aesthetics of typography and layout, benchmarking, and usability engineering are used to analyze websites and write successful site development plans. Emphasis is on basic web page design techniques. Topics include standards for representing common media formats, compression algorithms, file format translation tools, hardware requirements and standards, system constraints, Java, CGI scripts, and virtual reality. Assignments require building a portfolio of rich media content.

IMAT 670 Contemporary Topics in Informatics (3)

A capstone study of emerging and current technologies, as well as some eternal verities in IT management, that integrates and augments concepts previously studied. Topics vary and may include aligning IT with the strategic goals of the enterprise, leadership in IT, software psychology in the design of user interfaces, geographical information systems, building and managing internet communities, technology to ameliorate the digital divide, managing an enterprise's IT portfolio, and the social impact of information policy decisions.

Information Assurance

INFA 610 Foundations of Information Security and Assurance (3)

(To be taken as the first course in the program.) An overview of techniques for ensuring and managing information security. Topics include administrative and technical security controls to prevent, detect, respond to, and recover from cyber attacks; risk and vulnerability analysis to select security controls; security planning; security architecture; security evaluation and assessment; and legal, ethical, and privacy aspects of information assurance. Discussion also covers information security fundamentals, such as cryptography, authentication, and access control techniques, and their use in network, operating system, database, and application layers. Emphasis is on security issues of current importance.

INFA 620 Network and Internet Security (3)

An introduction to the security concepts needed for the design, use, and implementation of secure voice and data communications networks, including the internet. A brief review of networking technology and standards (including an introduction to internet communication protocols) is provided. Security subjects addressed include defense models, security policy development, authentication and authorization controls, firewalls, packet filtering, virtual private networks (VPNs), and wireless network security. A project on network security in a hypothetical scenario based on the inputs from government agencies and commercial organizations is assessed by a team of experts who are working in the field.

INFA 630 Intrusion Detection and Intrusion Prevention (3)

An exploration of the theory and implementation of intrusion detection and intrusion prevention. Topics include network-based, host-based, and hybrid intrusion detection; intrusion prevention; attack pattern identification; deployment; response; surveillance; damage assessment; data forensics; data mining; attack tracing; system recovery; and continuity of operation. A project on intrusion detection and intrusion prevention in a hypothetical scenario based on the inputs from government agencies and commercial organizations is assessed by a team of experts who are working in the field.

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INFA 640 Cryptology and Data Protection (3)

An overview of the theory of encryption using symmetric and asymmetric keys, current protocols for exchanging secure data (including the Data Encryption Standard and the Advanced Encryption Standard), and secure communication techniques. A review of the historical development of cryptographic methods and cryptanalysis tools is provided. Public Key Infrastructure and the use of digital signatures and certificates for protecting and validating data are examined. Strategies for the physical protection of information assets are explored.

INFA 650 Computer Forensics (3)

An introduction to the fundamental concepts behind the collection and analysis of the digital evidence left behind in a digital crime scene. Topics include the identification, preservation, collection, examination, analysis, and presentation of evidence for prosecution purposes. Discussion also covers the laws and ethics related to computer forensics and challenges in computer forensics. Network forensics is briefly explored. A project on computer forensics or network forensics in a hypothetical scenario based on the inputs from government agencies and commercial organizations is assessed by a team of experts who are working in the field.

INFA 660 The Law, Regulation, and Ethics of Information Assurance (3)

An overview of the legal, regulatory, and ethical issues related to cyberspace. Emphasis is on developing skills in spotting ethical and legal issues and navigating through the complex and changing legal and regulatory environment as it applies to behavior in cyberspace. Various resources and materials related to the ethical and legal operation of modern computer systems, applications, and networks are presented.

INFA 670 Information Assurance Capstone (3)

Prerequisites: INFA 610, INFA 620, INFA 630, INFA 640, INFA 650, and INFA 660 (3 credits may be taken concurrently). A study of information assurance that integrates and applies concepts previously studied. Best practices and appropriate technologies to design, implement, manage, evaluate, and further improve information security are explored. Emerging trends are analyzed to understand their potential effect on information security and assurance.

Information Systems and Services

ISAS 600 Information Systems for Managers (3)

(Designed for managers without a technical background in computers and information systems.) Prerequisite: Basic micro-computer skills. An investigation of different types of hardware

and software and their application in organizations from a systems perspective. Case studies are used to reveal technical and organizational issues and operational considerations. Emphasis is on determining managers' needs for information and procuring and using appropriate computer systems.

ISAS 610 Information Systems Management and Integration (3)

A study of the life cycle of the information system, from inception, through systems development and integration, to system operation and maintenance. Emphasis is on the integration of information systems with management systems of an organization. Major phases, procedures, policies, and techniques in the information system life cycle are discussed in detail.

ISAS 620 Information Systems Sourcing Management (3)

A study of how best to make and implement appropriate decisions in providing information systems to an organization, as well as how to manage the outcomes of such decisions. Focus is on the frameworks, tools, and techniques for making sourcing decisions. Topics include make-or-buy decisions, the use of off-the-shelf package software (including enterprise resource planning software), various models of outsourcing, and the outsourcing of entire business processes. The implications of whether to source domestically or offshore are evaluated. Discussion also covers contemporary issues related to cloud computing and the options it offers.

ISAS 630 Systems Analysis and Design (3)

A study of current techniques and practices in requirements specification, software application selection, project management, and analysis and design of information system applications. Emphasis is on a management perspective in the specification of the information system's logical and physical analysis and design.

ISAS 640 Decision Support Systems and Expert Systems (3)

An investigation of computer applications for management support. The technologies of decision support systems and expert systems and the organizational factors leading to the success or failure of such systems are introduced. Topics also include group decision support systems, integration and implementation issues, and related advanced technologies such as neural networks.

ISAS 650 Information Technology, the CIO, and Organizational Transformation (3)

An examination of how information technology can affect the strategic direction of an organization, how IT enables new ways of operating, and how the chief information officer can serve as a trusted member of the organization's top management team to help it exploit information technology effectively.

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Information Technology

ITEC 610 Information Technology Foundations (3)

A fundamental study of technology and its applications, as well as the economic and social issues they have raised. Topics include computers, peripherals, databases, and networks; operations (of business, government, and other enterprises), decision support systems, and acquisition of information technology resources; and information security, productivity, equitable access by users, intellectual property rights, and global reach. Discussion also covers current and future developments in the field and their implications.

ITEC 625 Computer Systems Architecture (3)

An introduction to the evolution of computer systems design and hardware and software architectures. Focus is on computer organization (classical and advanced architectures), operating systems, and applications development. Emerging developments in computer systems architecture are also examined.

ITEC 626 Information Systems Infrastructure (3)

An introduction to information systems infrastructure. Focus is on data communications and networks. Discussion covers layered network architectures and communication hardware. Emerging technologies such as social media, mobile computing, cloud computing, big data, and the Internet of Things are also examined.

ITEC 630 Information Systems Analysis, Modeling, and Design (3)

A study of systems analysis and design, using selected engineering and management science techniques and practices. Topics include requirements determination, modeling, decision making, and proposal development. The System Development Life Cycle Model, including system implementation and postimplementation activities, is examined. Emphasis is on the specification of the information system's logical and physical analysis and design from a management perspective. Research and project assignments related to information systems analysis, design, implementation, and/or project planning and control require individual and group work.

ITEC 640 Information Technology Project Management (3)

An examination of the fundamental principles and practice of managing programs and projects in an information processing and high-tech environment. The dynamic nature of IT and the effect of life cycles are explored. The fundamental building blocks of high-tech management styles (including project planning, organizational structure, team building, and effective control mechanisms) are addressed. Discussion covers the effect of product and project life cycles in delivering a successful IT project, considering the obsolescence factors in procurement/stakeholder

contracts. The goal is to gain a solid foundation to successfully manage each phase of the project life cycle, work within organizational and cost constraints, set goals linked directly to stakeholder needs, and utilize proven management tools to execute a dynamic project on time and within budget. Emphasis is on how to apply the essential concepts, processes, and techniques in the management of large-scale governmental or commercial programs. Topics also include the need for global vision, strong planning techniques, appropriate training before introducing any IT product into the market, and discipline in executing tasks.

Intelligence Management

INMS 600 Managing Intelligence Activities (3)

An introduction to management issues associated with the national intelligence community and activities in national and homeland security, law enforcement, and the private sector. Intelligence is evaluated from the perspectives of its consumers in government and business. Topics include the historical issues that led to extensive oversight of intelligence agencies and laws restricting their activities. Discussion also covers recent changes in national intelligence and current issues, such as the debate over security versus civil liberties and how to protect America from foreign espionage and exploitation.

INMS 610 Intelligence Collection: Sources and Challenges (3)

A study of the management challenges related to collecting all-source intelligence for national security, counterterrorism, and business purposes through case-study analysis and planning exercises. The fundamentals of multisource intelligence—human source intelligence; open source intelligence; signals intelligence; geospatial intelligence; technical intelligence; cyber intelligence and persistent intelligence, surveillance, and reconnaissance (ISR) collection—are assessed. Discussion covers innovative collection methods, access to denied environments, agile architectures, the impact of artificial intelligence and machine learning, sensor data fusion and the integration of multisource intelligence. Topics include how requirements drive collection efforts, the relationship between collection and analysis, and the costs associated with collection of intelligence.

INMS 620 Intelligence Analysis: Consumers, Uses, and Issues (3)

Prerequisites: INMS 600 and INMS 610. An examination of the intelligence requirements of various clients in government and the private sector. The various purposes of analysis, such as warning, policy planning, research and development, systems or product planning, support for law enforcement and correctional agencies, support for operational activities, and investment, are examined.

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Discussion covers managing analytical methodologies and techniques and dissent in analyses, adapting cutting-edge machine learning techniques, and understanding the reasons for failures. Case studies illustrate issues in analysis management and critical thinking. The conflict between intelligence analysts and decision makers at national and local levels is explored.

INMS 630 Counterintelligence (3)

An examination of the vulnerabilities of the United States, allied countries, and private businesses to espionage and how counterintelligence can reduce the threat. Discussion covers case studies of espionage against America, including insider threats and cyber and economic espionage against U.S. technology and business. Topics include the roles, missions, and espionage activities of foreign intelligence services. Major threat groups are assessed, and management issues related to countering these threats are evaluated. U.S. policy issues and the management challenges of interagency cooperation among local, state, and international sources and public/private partnerships are explored.

INMS 640 Intelligence-Led Enforcement (3)

An evaluation of management approaches and an assessment of issues associated with intelligence support for crime prevention and law and regulation enforcement. Topics include the issue of public-private cooperation, domestic counterterrorism, drug law enforcement, and actions to counter financial crimes. Interagency cooperation and intelligence sharing with state, local, and tribal agencies and laws and executive orders related to intelligence promulgated since 9/11 are examined. The roles of intelligence in fighting transnational crime and cybercrime is also covered. Assignments include case-study analysis and original research.

INMS 650 Intelligence Management and Oversight (3)

Prerequisites: INMS 600 and INMS 610. An examination of the relationships among intelligence organizations at federal, state, and local levels, as well as with private corporations. Strategies for the management and control of intelligence activities, including establishing policies, setting budgets, and conducting reviews, are examined. Discussion covers how intelligence oversight (including the roles and responsibilities of the executive, legislative, and judicial branches of government) works and how business intelligence activities are managed and overseen in the private sector.

INMS 660 Leadership Seminar (3)

Prerequisite: Completion of 30 credits of program coursework, including all core and specialization courses (except MGMT 670). An analysis and assessment of leadership challenges within intelligence environments. Key leadership and management principles in dealing with intelligence situations, scenarios, and issues are applied to real-world intelligence situations, such as

handling insider threats; augmenting intelligence collection; planning intelligence, surveillance, and reconnaissance (ISR) operations; establishing and expanding foreign intelligence partnerships; prioritizing budgets; responding to intelligence oversight inquiries; infusing advanced technologies; coordinating intelligence and cyber operations; or assessing counterintelligence, counterterrorism, and nation-state security threats.

Learning Design and Technology

LDT 610 Learning Design and Digital Pedagogy (6)

Prerequisite: DCL 600. Gain the foundational knowledge, skills, and dispositions needed in the field of learning design. Explore the history of online learning and design; current learning design models; foundational theories and principles of distance learning, adult learning, collaborative and social learning, and computer-mediated learning; and technology tools and applications to support online interactions.

LDT 620 Learning Design, Media, and Emerging Technologies (6)

Prerequisite: LDT 610. Develop skills in the design, development, and integration of digital media to enhance the learning experience. Investigate how media, emerging and mobile tools, and online applications impact technology-mediated learning environments. Explore media and visual literacy; graphic design for online and mobile environments; the use and design of open educational resources; emerging technologies; and trends in technology such as mobile learning environments, gaming, and augmented reality.

LDT 630 Learning Design and Data Analytics (6)

Prerequisite: LDT 620. Investigate advanced learning design concepts, and apply data analytics to assess the impact of design and technology on learning. Implement a systems thinking approach and digital tools to evaluate and support online learners and learning programs. Explore the assessment of online learning and interactions, data analytic tools and techniques, ways to support user experiences, human/computer interface design, and data visualization.

LDT 640 Advanced Practicum in Learning Design (6)

Prerequisite: LDT 630. Examine and evaluate leadership and change models to advance learning design projects. Identify and research legal issues associated with online teaching and learning. Examine leadership and project management techniques associated with learning design projects, evaluate learning management systems, and identify a project and develop a learning design seminar proposal.

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LDT 670 Learning Design Seminar (6)

Prerequisite: LDT 640. Assume the role of an instructional designer and apply learning design knowledge, skills, and dispositions to create and assess an authentic online learning program. Complete the design, implementation, and analysis of a learning design project. Develop a professional portfolio and present the project and reflective analysis online.

Management

MGMT 610 Organizational Theory (3)

An overview of the fundamental concepts of organizational theory and design in the context of a postindustrial and increasingly global society. The study of organizations encompasses several key knowledge areas essential to today's manager: the impact of technological and workforce changes on society, organizational ethics and social responsibility, global issues, the history of management thought and its relevance for managers today, and systems thinking and the challenges of managing in today's complex and rapidly changing environment. Discussion addresses essential concepts in organizational theory and design, including measuring effectiveness, organizational life cycles, options for organizational structure, and becoming the learning organization.

MGMT 615 Intercultural Communication and Leadership (3)

A study of organizational communication, leadership, and decision-making skills essential for all managers in intercultural environments. Theories of culture are examined and applied in relation to leadership style and practices, as well as to organizational communication across cultural groups. Team development and leadership are explored in an intercultural environment.

MGMT 630 Organizational Theory and Behavior (6)

(Not open to students who have completed MGMT 610 and/or MGMT 615,) An overview of the fundamental concepts of organizational theory and organizational behavior in the context of a post-industrial and increasingly global society. Topics include the impact of technological and workforce changes on society, organizational ethics and social responsibility, organizational communication, leadership and decision-making skills in intercultural environments, the history of management thought and its relevance for managers today, and systems thinking and the challenges of managing in today's complex and rapidly changing environment.

MGMT 640 Financial Decision Making for Managers (3)

Prerequisite: Knowledge of the fundamental concepts of financial accounting and economics, including opportunity cost, the time value of money, and financial analysis. An investigation of financial decision making in business, government, and not-for-profit

organizations. Emphasis is on the application of financial and nonfinancial information to a wide range of management decisions, from product pricing and budgeting to project analysis and performance measurement. A variety of decision-making tools (such as break-even analysis, activity-based costing procedures, and discounted cash flow techniques) are studied. Contemporary managerial practices are explored.

MGMT 650 Statistics for Managerial Decision Making (3)

Prerequisite: Knowledge of the fundamentals of statistical methods, techniques, and tools. An examination of how managers organize, analyze, and interpret data for decision making. Focus is on developing skills in using statistical tools to make effective business decisions in all areas of public- and private-sector decision making, including accounting, finance, marketing, production management, and human resource management. Topics include collecting data; describing, sampling, and presenting data; probability; statistical inference; regression analysis; forecasting; and risk analysis. Microsoft Excel is used extensively for organizing, analyzing, and presenting data.

MGMT 670 Strategic Management Capstone (3)

Prerequisite: Completion of 24 credits of program coursework, including all core courses. A capstone investigation of how strategy interacts with and guides an organization within its internal and external environments. Focus is on corporate- and business unit-level strategy, strategy development, strategy implementation, and the overall strategic management process. Topics include organizational mission, vision, goal setting, environmental assessment, and strategic decision making. Techniques such as industry analysis, competitive analysis, and portfolio analysis are presented. Discussion covers strategic implementation as it relates to organizational structure, policy, leadership, and evaluation issues. The ability to think strategically and to weigh things from the perspective of the total enterprise operating in an increasingly global market environment is emphasized. Case analyses and text material are used to integrate knowledge and skills gained through previous study.

Marketing

MRKT 600 Marketing Management (3)

An introduction to marketing management techniques. Emphasis is on achieving an organization's marketing objectives by creating value for individual consumers and organizational customers. Discussion covers planning, decision making, marketing goals, and metrics. Topics also include consumer behavior, competitive strategies, marketing communications (e.g., advertising, digital marketing), marketing research, pricing, and distribution.

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MRKT 601 Legal and Ethical Issues in Marketing (3)

An overview of the legal and ethical environment of marketing. Topics include consumer privacy, ethical responsibilities, fair advertising, free speech, global marketing, intellectual property, and regulatory issues.

MRKT 602 Consumer Behavior (3)

A study of the cognitive and behavioral bases underlying consumers' buying preferences and decision processes, intended for managers and administrators who have to evaluate the efficacy of the firm's marketing plan. Emphasis is on the role of the communications strategy (for example, advertising, promotion, public relations) in achieving the overall marketing objectives.

MRKT 603 Brand Management (3)

A presentation of the concepts and techniques for creating and selecting marketing strategies for an organizational unit that survives on its ability to provide products and services to other organizations. Discussion covers trends toward a marketing culture in both public and private institutions and the implications that this change has for all managers and administrators. Emphasis is on the role of brand equity in achieving a sustainable competitive advantage.

MRKT 604 Marketing Research and Analytics (3)

Prerequisite: MGMT 650. A study of marketing research methods. Focus is on identifying marketing problems and opportunities and developing data-based approaches to generate, refine, and evaluate marketing actions. Topics include designing market research strategies, understanding customer data analysis techniques and their application to real-world marketing problems, and evaluating the managerial implications of analytical results.

MRKT 605 International Marketing Management (3)

An overview of the fundamentals of marketing and marketing management, presented in the context of competitive global environments and diverse national economies. Topics include demand analysis, product development, product pricing, marketing organization, foreign representation and distribution systems, promotion, advertising, and sales and service. Review also covers regulatory issues as they relate to international marketing.

MRKT 606 Digital and Direct Marketing (3)

Prerequisite: MGMT 650. A study of various methods and techniques used in digital and direct marketing. Focus is on assessing customer needs to better use social and digital techniques and other tools in the context of a comprehensive digital marketing strategy. Discussion covers digital analytics concepts and their role in developing optimized digital insight-driven marketing strategies as well as traditional direct marketing methods to promote customer engagement and deploying multiple marketing channels

to enhance customer relationships. Topics include search engine marketing, digital content marketing, mobile marketing, database marketing, direct mail, telemarketing, and email marketing.

MRKT 620 Marketing Management and Legal and Ethical Issues (6)

An introduction to marketing management techniques and the legal and ethical environment of marketing. Discussion covers planning, decision making, marketing goals, and metrics. Emphasis is on achieving an organization's marketing objectives by creating value for individual consumers and organizational customers. Topics include consumer behavior, competitive strategies, marketing communications (e.g., advertising, digital marketing), marketing research, pricing, and distribution. Legal and ethical topics include consumer privacy, ethical responsibilities, fair advertising, free speech, global marketing, intellectual property, and regulatory issues. Students who receive credit for MRKT 620 may not receive credit for MRKT 600 or MRKT 601.

Nonprofit Management

NPMN 600 Nonprofit and Association Organizations and Issues (3)

A presentation of a framework outlining the roles and functions of the principal types of nonprofit organizations. Characteristics that distinguish nonprofit organizations from their counterparts in the private and public sectors are introduced. The challenges, opportunities, and common issues facing managers of nonprofit organizations are explored. These issues include administrative cost control, preserving the organization's legal status and revenue base, staffing and organizing in response to client needs, and ethical considerations. Specific laws, regulations, policies, and court rulings that affect the nonprofit sector are examined.

NPMN 610 Nonprofit and Association Law and Governance (3)

A study of current ideas and approaches related to nonprofit law, governance, and mission. Discussion covers distinctions between nonprofit, educational, charitable, social action, membership, cultural, scientific, environmental, and trade associations as they relate to incorporation, legal standing, tax-exempt status, and governance. Topics include nonprofit governance and trustee issues, as well as lobbying and advocacy, nonprofit liability, personnel, and unrelated business income tax. Special attention is paid to the relationship of governance and ethics in nonprofit management.

NPMN 620 Nonprofit and Association Financial Management (3)

A detailed study of theories and practices of nonprofit financial management and decision making, including budgeting, reporting requirements, nonprofit accounting, and financial standards.

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Focus is on the role of financial management in maintaining the fiscal health and legal status of the nonprofit organization. Topics include budgeting, fund accounting, cash flow analysis, expenditure control, long-range financial planning, audits, and grant and contract management. Discussion also covers compliance with nonprofit accounting and financial management principles in reference to maintaining public access and ethical standards.

NPMN 640 Marketing, Development, and Public Relations in Nonprofit Organizations and Associations (3)

A study of the principles and practices required to develop and promote the products, services, positions, and image of nonprofit organizations. Focus is on fundraising and membership recruitment issues. Topics include the design of a marketing strategy and marketing mix, pricing issues, alternative revenue-generating mechanisms, and customer service. Discussion also explores use of the media; advertising and promotion methods; and relationships with business, government, and the community. The integration of sponsors, members, and chapters in the total marketing effort is examined.

NPMN 650 Fundamentals of Association Management (3)

A study of the unique and important niche of associations within the nonprofit sector. Analysis covers the history of associations, political groups, trade lobbying groups, and foundations in relation to their varying missions, internal capacity, shifting environments, and legal status. Associations also are assessed in terms of their wider environment, including the extent of their labor force and command of capital resources. Discussion covers the wider influence of associations on U.S. economy and policy.

NPMN 655 Process and Outcome Evaluation for Nonprofit Organizations (3)

An examination of the growing importance of process and outcome evaluation to nonprofit organizations in supporting their missions. Various quantitative and qualitative evaluation strategies, as well as quality and process-improvement methodologies, are explored. Topics include important evaluation concepts, such as validity and reliability of various data collection tools, various approaches to sampling, and precision of results.

NPMN 660 Strategic Management in Nonprofit Organizations and Associations (3)

A study of the integration and application of strategic management principles, concepts, and practices in nonprofit organizations. Topics include the development of mission statements, goal-setting concepts, and strategy formulation and implementation approaches. Assignments focus on designing organizational plans and strategies relevant to the specific needs of organizations.

Professional Communication and Leadership

PRO 600 Communicating, Problem Solving, and Leading in Professional Fields (6)

Make yourself more valuable to an employer by gaining and improving skills in communication and problem solving. Explore your field by developing connections to your career path, creating a professional social network presence, and using critical thinking to inform decisions. Improve and refine your skills in communication, critical thinking, quantitative reasoning, and team leadership as you hone your professional writing and oral communication skills and proficiency with analytical software programs, collaboration tools, and other professional software.

Project Management

PMAN 634 Foundations of Project Management (3)

An overview of the theory and practice of managing projects in any industry. Emphasis is on leadership in project management: managing projects or tasks in a team environment; building teams; and utilizing communication, organization, and conflict management skills. Discussion covers project management process groups and how these process groups (initiating, planning, executing, monitoring and controlling, and closing the project or project phase) interact throughout the life cycle of the project. Project management knowledge areas are examined and linked to industry practices for successful management of projects. The goal is to gain a solid understanding of how to successfully manage multiphase projects, work within organizational constraints, set goals linked directly to stakeholder needs, and utilize proven project management tools to complete projects on time and within budget while meeting specifications. Essential concepts, processes, and techniques are applied through management of a team project, which requires regular progress reports and reviews.

PMAN 635 Quantitative Methods in Project Management (3)

Prerequisites: PMAN 634, MGMT 640, or ITEC 640 (or an approved course in finance) and MGMT 650 (or an approved course in statistics). An overview of quantitative aspects of managing projects, applying widely used statistical techniques and software tools for project management and risk analysis. Topics include analytical approaches and quantitative methods in project management, such as cash flow analysis, scheduling projects based on resource availability, resource leveling, expediting projects, quantitative risk analysis, and techniques for estimating actual vs. expected project

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duration and cost. Simulation tools and statistical techniques are used to analyze uncertainty in estimating project cost and duration. Discussion also covers project portfolio management and how multiple projects and programs fit into the strategic direction of an organization. The processes, tools, and techniques of project management are applied to a team project with emphasis on quantitative and analytical methods.

PMAN 637 Project Risk Management (3)

Prerequisites: PMAN 634 and PMAN 635. An in-depth analysis of risk management methods and cases and project management risk monitoring from strategic, applied perspectives. State-of-the-art tools and techniques for identifying, ranking, and monitoring risks in the project management environment are examined and utilized. Both qualitative and quantitative risk analyses are conducted, and strategies for proactive risk mitigation are developed. Focus is on how a comprehensive risk management approach can enable a project team to proactively manage issues that adversely impact the successful scope, scheduling, control, and completion of a project.

PMAN 638 Project Communications Management (3)

Prerequisite: PMAN 634. An overview of conflict resolution processes and methods and the skills needed to manage the human elements within project management—a task as challenging as managing the technical aspects. Topics include critical communication and conflict resolution issues faced by project workers in today's global corporate environment. Innovative approaches to successfully negotiating and resolving conflicts among team members, colleagues, managers, and stakeholders are introduced and practiced. Proven techniques to make conflict a constructive rather than a destructive experience are analyzed. Emphasis is on case-study analysis, effective communication behaviors, negotiation skills, and virtual team processes to successfully lead both domestic and global projects.

PMAN 639 Project Quality Management (3)

Prerequisites: PMAN 634 and PMAN 635. A study of the policy, processes, and procedures involved in ensuring that projects satisfy their objectives. Emphasis is on quality planning, quality assurance, quality control, and process improvement. Discussion covers all the activities that determine quality objectives, policies, and responsibilities. The importance of customer satisfaction, prevention over inspection, management responsibility, and continuous improvement is recognized. Topics include control charts, cause and effect diagrams, Pareto charts, failure mode and effect analysis, design reviews, and cost of quality. Course content and approach are compatible with the standards set by the International Organization for Standardization.

PMAN 641 Project Procurement Management (3)

Prerequisite: PMAN 634. An examination of the tools needed for project procurement management. Focus is on determining what needs to be purchased or acquired and determining when and how to acquire it. Topics include planning the contracting efforts (documenting products and services and identifying potential sellers); requesting sellers' responses (obtaining information, quotes bids, offers, or proposals); selecting the seller (receiving and reviewing offers, selecting among those potential offers, and negotiating a contract); administering contracts (managing the relationship between buyers and sellers, including documentation, corrective actions, and contract changes); and closing contracts (completing the contract and settling all open issues).

PMAN 650 Financial and Strategic Management of Projects (3)

Prerequisites: PMAN 634 and PMAN 635. An investigation of financial and strategic decision making in the management of projects. Topics include estimating project costs from work breakdown structure; formulating, monitoring, and controlling project budgets; monitoring, evaluating, and forecasting project costs, schedule, results, and performance using earned value management; and deriving project cash flows. Discussion also covers the impact of project scope, schedule, and changes; management reserves to cover risks and contingencies; top-down and bottom-up budgeting; investment project analysis; discounted cash flow, internal rate of return, and net present value methodologies; cost of capital; and capital budgeting. Broader issues (such as links between project and corporate financial performance, business ethics, corporate social responsibility, project and organizational culture, information flow, and project sustainability) are also examined.

Software Engineering

SWEN 603 Modern Software Methodologies (3)

An in-depth overview of widely used modern software development methodologies. Historical software development methods are introduced. Topics include rapid application development and Agile development, Scrum, Extreme Programming (XP), Unified Process, EVO (Evolutionary Project Management), lean software development, test-driven development, feature-driven development, Crystal solutions, Rational Unified Process, and other Unified Process methods. Discussion also covers advantages and drawbacks of using each method.

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SWEN 645 Software Requirements (3)

An examination of major models of software requirements and specifications, existing software standards and practices, and formal methods of software development. Topics include writing system and software requirements, formal specification analysis, formal description reasoning, models of standard paradigms, and translations of such models into formal notations.

SWEN 646 Software Design and Implementation (3)

An exploration of modern software development techniques, tools, and technologies for building large, complex systems. Topics include software development processes and the role of design in those processes. Discussion also covers major design methods, available computer-aided software engineering (CASE) tools, the proper application of design methods, and techniques for estimating the magnitude of the development effort. Object-oriented programming is presented. Focus is on building software products using these technologies.

SWEN 647 Software Verification and Validation (3)

A study of methods for evaluating software for correctness, efficiency, performance, and reliability. Skills covered include program proving, code inspection, unit-level testing, and system-level analysis. The difficulty and cost of some types of analysis and the need for automation of tedious tasks are examined. Emphasis is on problem-solving skills, especially in analyzing code.

SWEN 651 Usability Engineering (3)

A study of the theory and practice of designing user interfaces for interactive systems. Topics include the principles of usability engineering and basic rules for usable design. User interfaces are evaluated using techniques such as contextual inquiry, task analysis, and usability testing. Discussion also covers when these techniques are most appropriate.

SWEN 656 Advanced Software Design and Implementation (3)

Prerequisite: SWEN 646. An exploration of software design and implementation for reducing complexity of systems. Topics include software design patterns, object-oriented programming, and aspect-oriented programming design. Focus is on building software products using these technologies.

SWEN 661 User Interface Implementation (3)

Prerequisite: SWEN 651. An examination of all types of user interfaces. Topics include developing user interfaces using mobile, desktop, and web technologies. Focus is on building user interfaces using these technologies.

SWEN 670 Software Engineering Project (3)

Prerequisite: 30 credits of program coursework, including all core courses. A comprehensive examination of the tools, skills, and techniques of software engineering and their application. Completion of a major team project is designed to integrate knowledge and skills gained through previous study and provide experience of the constraints commonly experienced in industry (e.g., scheduling, vagueness of clients). Project requires forming teams (organization) and scheduling work to meet the deadlines imposed by the contract (syllabus).

Special Topics

UCSP 605 Effective Graduate Writing (0)

(Recommended for students who want to improve their writing skills.) An introduction to the writing skills needed for effective academic writing. Skills addressed include using accurate grammar and punctuation; summarizing and synthesizing texts; developing well-organized, well-supported informative essays; integrating sources into writing, formatting academic papers using APA guidelines; and revising writing to produce clear, concise documents.

UCSP 615 Orientation to Graduate Studies at UMGC (0)

(Required within the first 6 credits of graduate study for all new graduate students, except those in programs requiring CBR 600, DCL 600, or PRO 600.) An overview of the skills needed for academic and professional success. Focus is on enhancing communication and critical thinking skills. Assignments provide familiarity with tools such as library and information resources. APA style and resources are also addressed.

UCSP 620 Introduction to Accounting and Financial Management (0)

(Recommended as preparation for MGMT 640 or ACCT 610 for students with little or no background in accounting and finance.) A basic study of accounting and financial management concepts and their application in analyzing financial statements and estimating the value of long-lived capital projects and investments. The financial statements of actual companies are analyzed using financial ratios. Future and present value of financial and real assets/investments are calculated based on the time value of money. Emphasis is on gaining an appreciation for how financial management and accounting information can be used to support financial analysis, valuation, and decision making in various contexts.

UCSP 630 Introduction to Research Methods (0)

(Recommended as preparation for MGMT 650 or HAIN 650 for students who lack a background in statistics.) A presentation of basic research techniques and methodologies used in organizational research and evaluation studies to make business deci-

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sions. Focus is on applying basic research techniques to assess the performance of individuals, work groups, and organizations. Topics include principles of good data collection, presentation of data in tables and charts, summary and description of numerical data, basic probability and discrete estimation, the fundamentals of hypothesis testing, and the use of existing research-based materials to solve business problems. Discussion emphasizes basic approaches and beginning skills necessary to evaluate research materials and their use in decision making.

UCSP 635 Essentials of Computer Programming (0)

(Recommended preparation for bioinformatics, data analytics, database technology, and software engineering students with little or no programming experience). An applied approach to creating computer programs. Discussion covers all aspects of basic programming, including variables, arrays, conditions, and input/output.

UCSP 636 Structure of Computer Programming (0)

(Recommended preparation for bioinformatics, data analytics, database technology, and software engineering students with some programming experience, typically with older languages such as PRG and COBOL.) Prerequisite: UCSP 635. An applied approach to creating computer programs. Discussion covers aspects of programming related to the structure of the program, including loops, procedures/functions, and leveraging other software libraries/packages.

Strategic Communications

MSC 610 Foundations of Strategic Communications (6)

Prerequisite: DCL 600. Acquire foundational skills in strategic communications, including effective writing targeted to different audiences and media; fundamental research; and the planning, execution, and assessment of a communications plan. Become familiar with the public relations, marketing, and advertising industries and their practices; theoretical and ethical foundations; and the role of strategic communications in each.

MSC 620 Communications Techniques and Tactics (6)

Prerequisite: MSC 610. Develop internal and external communications strategies, and select and produce appropriate communications tactics to execute them. Create internal communications that focus on employee engagement, leadership, and change management. Exercise best practices in media relations and social media product development.

MSC 630 Communications Leadership and Management (6)

Prerequisite: MSC 620. Practice advanced strategic communications decision making in both national and international contexts. Coordinate public relations efforts internally, particularly between marketing and advertising departments. Master fundamental financial accounting and budgeting concepts required for many communications campaigns in business, government, and non-profit sectors. Align communications campaigns with organizational objectives. Follow global strategic communications trends and legal and ethical issues.

MSC 640 Crisis Communications Management (6)

Prerequisite: MSC 630. Develop strategic responses, including crisis definition, issue management, and crisis communications management, to crisis situations. Apply crisis communication theory, and implement risk communication and reputation and image restoration best practices. Utilize appropriate research methods to inform a crisis communications plan.

MSC 670 Capstone: Communications Campaigns (6)

Prerequisite: MSC 640. Assume the role of a corporate communications director and create a communications plan to support an organizational strategy for an existing organization. Conduct research; develop a problem statement; and identify campaign goals and objectives, audience segments, and messaging targeted to those segments. Create a communications strategy with tactics and timelines, evaluation plans, and a realistic budget.

Systems Engineering

SYSE 610 Systems Engineering Overview (3)

An introduction to systems engineering using examples of manufacturing, information, and mechanical systems that involve the integration of different technologies. Emphasis is on the role of the systems engineer. Systems thinking principles and complex systems and system-of-systems theory are reviewed. Discussion covers various approaches to system dynamics modeling. An overview of the system life cycle through conception, design and development, integration and testing, and deployment and support is provided.

SYSE 620 Requirements Engineering (3)

An in-depth examination of the various techniques used in establishing and specifying system requirements, both physical and functional. Topics include system decomposition, requirements traceability, configuration management, and requirements validation. Several U.S. and international standards are examined as examples of requirements specification.

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GRADUATE COURSE DESCRIPTIONS

SYSE 625 Model-Based Systems Engineering (3)

Prerequisite: SYSE 610. An introduction to formal system modeling and simulation methods using software-based approaches, which are replacing more traditional document-based descriptive modeling methods. Discussion covers the trend in industry toward standardized modeling techniques using software, especially SysML (Systems Modeling Language) computer packages, allowing greater consistency in system model representations between technologies, across industries, and even across language barriers. Topics include ways that computers can represent system models in detail and provide complex system simulations with minimum effort using several different system modeling and simulation software platforms. The objective is to be able to determine when and how model-based systems engineering (MBSE) approaches are useful, which tools to use, which data to use as input to the MBSE tools, and how to use the results from the tools in decision making.

SYSE 630 System Design and Development (3)

Prerequisites: SYSE 610 and SYSE 620. A detailed exploration of the design and development phases of the system life cycle. Discussion covers several tools used for systems simulation and computer-aided design. Topics also include methods and policies for change control and the principles of quality assurance as an underlying concept in systems design.

SYSE 640 System Integration and Test (3)

Prerequisites: SYSE 610 and SYSE 620. A review of various strategies used to integrate system components and verify satisfaction of requirements at both subsystem and overall system levels. The concept of formal verification, validation, and accreditation (VV&A) is discussed. Examples of automated software testing tools are also examined.

SYSE 650 Design Considerations (3)

Prerequisites: SYSE 610 and SYSE 620. An introduction to system engineering subdisciplines that are critical in system design and deployment. Discussion covers reliability, availability, and maintainability (RAM) factors. Concepts in human factors engineering, system safety, and quality assurance are also reviewed.

SYSE 660 Systems Engineering Management (3)

Prerequisites: SYSE 630 and SYSE 640. An examination of the role played by the systems engineer as liaison between technical specialists, business managers, and internal users or external customers. Discussion covers the traditional systems development life cycle, domestic and internal standards, and the evolving emphasis on agile methods and adaptive processes. Topics also include risk management and organizational considerations in outsourcing.

SYSE 670 Systems Engineering Capstone (3)

Prerequisites: SYSE 640 and SYSE 650. A project-based capstone study of systems engineering designed to integrate knowledge and skills gained in previous study. Both individual projects and a group project focus on demonstrating the ability to construct a system design and develop a plan for a system's development and support.

Transformational Leadership

TLP 610 Repositioning Your Leadership Skills (6)

Prerequisite: DCL 600. Master the ways in which leadership takes place within organizations and the most effective leadership styles for directing individuals, projects, and groups to success. Demonstrate the differences between managing and leading, focusing on motivating and inspiring individuals in preparation for future challenges and opportunities. Explore the various roles that leaders take on in domestic and global markets and the ways leaders influence events that can drive success through individual and collaborative efforts. Create your own personal brand as you begin a journey to becoming a transformational leader.

TLP 620 Leading in the Organization (6)

Prerequisite: TLP 610. Analyze the dynamics involved in leading a workforce of multigenerational and diverse talent. Develop strategies for facilitating an inclusive work culture and maximizing the varied skill sets and experiences of employees. Weigh the impact of workforce change on organizations, and consider the potential challenges that run counter to respectful, civil, and ethical work environments. Create retention and succession planning strategies and techniques for coaching and mentoring emerging leaders.

TLP 630 Leading with Strategy and Performance Measures (6)

Prerequisite: TLP 620. Gain the tools to assess the organization's bottom line and action steps for growth and sustainability. Apply strategic management theories and practice to measure and motivate organizational performance, identify trends, and direct the different stages of the organization's life cycle. Become proficient using tools to review and interpret analytics, market research, and financial data that can drive short- and long-range strategic decisions, and identify potential deficiencies that run counter to the organization's mission and goals.

COURSE INFORMATION

GRADUATE COURSE DESCRIPTIONS

TLP 640 Leading Through Change and Uncertainty (6)

Prerequisite: TLP 630. Apply change management techniques for leading and maintaining stability during unplanned, turbulent events within the organization. Analyze and implement strategic planning and decision-making approaches to diagnose the symptoms and predictors of organizational challenges and obstacles to change. Use change management models to assess organizational performance and process reengineering and to forecast outcomes and resistance to change at the individual, group, and organization levels.

TLP 670 Leadership Capstone (6)

Prerequisite: TLP 640. Lead a real-world consulting project. Apply the techniques of project management as you collaborate with a partnering organization to develop a strategic and financial plan to address an organizational issue. Use client-relationship management, organizational diagnosis models, and coaching and presentation skills to complete your consulting project and showcase your solutions and plans to your partner organization.

ACADEMIC AND ADMINISTRATIVE REQUIREMENTS

Academic Standards

UMGC standards for academic rigor assess the degree to which you demonstrate content mastery, application of critical thinking skills, and adherence to UMGC's code of academic integrity.

Grading Methods

There are five grading methods at UMGC: standard, pass/fail, satisfactory/unsatisfactory, satisfactory/D/fail, and audit.

The most commonly used is the standard method. Any course may be audited.

Some grading options and methods are limited to undergraduate or graduate courses as follows:

- The pass/fail grading method is available only at the undergraduate level and under limited conditions. The satisfactory/D/fail method is restricted to certain specified undergraduate courses. Both methods are described in the next section.
- The satisfactory/unsatisfactory method is available only for EXCL 001, graduate noncredit courses, and doctoral dissertation courses and may not be selected or changed.

The table at right defines the grades and marks; regulations and usage for each grading method are provided in the paragraphs that follow.

Grade or Mark	Interpretation	Quality Points
A	Exceeds standards Performance excels far above established standards and demonstrates high proficiency in the course subject matter.	4
B	Proficient Performance consistently meets standards and demonstrates proficiency in the course subject matter.	3
C	UNDERGRADUATE Meets standards Performance generally demonstrates proficiency in most course subject matter. GRADUATE Below standards Performance is insufficient to meet established standards.	2
D	UNDERGRADUATE Below standards Performance is insufficient to meet established standards. GRADUATE Not available	1
F	Failure Performance does not meet minimum standards.	0
FN	Failure for nonattendance	0
G	Grade pending	0
P	Passing (D or higher)	0
S	Satisfactory (C or higher)	0
I	Incomplete	0
AU	Audit	0
U	Unsatisfactory	0
W	Withdrawal	0

ACADEMIC AND ADMINISTRATIVE REQUIREMENTS

Standard

Unless you choose the pass/fail (for undergraduate courses only) or audit option for a particular course at the time of registration, you will be graded according to the standard grading method. Under the standard grading method, you earn a grade of A, B, C (for courses in which the grade of C is available), D (for undergraduate courses only), F, or FN on the basis of your performance in meeting the requirements of the course. All grades received under the standard grading method are included in calculating the grade point average (GPA).

Pass/Fail

If you are a degree-seeking undergraduate student, have earned 30 credits (including at least 15 credits at UMGC), and have a cumulative grade point average of 2.0, you may take one elective course each standard term (fall, spring, or summer) by the pass/fail method, up to a maximum of 18 credits.

This grading method is allowed only for electives. Courses that fulfill general education requirements, major or minor requirements, related requirements for the major, or certificate requirements 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.

You must elect pass/fail grading at the time you register. This status may not be changed after the first week of classes.

If you register for pass/fail grading, you must still complete all the regular requirements of the course. The faculty member evaluates your 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 of P, which is entered into the permanent record. A grade of F or FN remains unchanged.

Although a grade of P earns credit toward graduation, it is not included in calculating a grade point average. A grade of F or FN carries no credit toward graduation and is included in computing grade point averages.

This option is not available for graduate courses.

Satisfactory/Unsatisfactory

EXCL 001; graduate noncredit courses, currently designated UCSP or ASC; and doctoral dissertation courses are graded on a satisfactory/unsatisfactory basis. You may not choose to take other graduate courses or any undergraduate courses on a satisfactory/unsatisfactory basis. This grading method does not include an option for requesting a mark of Incomplete.

Satisfactory/D/Fail

This grading method is available only at the undergraduate level and on a limited basis, primarily for experiential learning courses. 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. While a grade of F or FN earns no credit toward graduation, it is included in computing grade point averages.

Grades and Marks

The Grade of F: Failure

The grade of F means you failed to satisfy the minimum requirements of a course. Although it carries no credit, it is included in calculating the GPA. If you earn a grade of F, you must register again for the course, pay all applicable tuition and fees, repeat the course, and earn a passing grade to receive credit for that course.

The Grade of FN: Failure for Nonattendance

The grade of FN is assigned if you register for a course and never attend or participate or if you cease to attend or participate within the first 60 percent of the course and do not officially drop or withdraw from the course. An FN grade results in zero quality points and no credit earned. It is included in calculating your GPA and may affect your academic standing. If you receive a grade of FN, you must register again for the course, pay all applicable tuition and fees, repeat the course, and earn a passing grade to receive credit for that course.

The Mark of G: Grade Pending

The mark of G is an exceptional and temporary administrative mark given only when the final grade in the course is under review. It is not the same as a mark of Incomplete.

The Grade of P: Passing

The grade of P is available only at the undergraduate level and is conferred after a faculty member has evaluated coursework under the normal procedure for letter grades and has submitted a standard grade (A, B, C, or D). Then the Office of the Registrar converts that standard grade into the grade of P.

A passing grade is recorded on the permanent record and confers credit toward graduation. However, courses graded P are not included in calculating grade point averages.

ACADEMIC AND ADMINISTRATIVE REQUIREMENTS

The Grade of S: Satisfactory

The grade of S is awarded only for select courses. Although the grade of S confers credit and appears on the permanent record, courses graded S are not included in calculating the GPA.

At the undergraduate level, the grade of S is equivalent to a grade of C or higher and is used to denote performance that meets standards in an experiential setting or practicum, such as EXCL 301.

At the graduate level, the grade of S is equivalent to a grade of B or better and is used to denote performance that meets standards in noncredit and doctoral dissertation courses.

The Grade of U: Unsatisfactory

The grade of U indicates that work for the course was not completed at a satisfactory level. Although it appears on the permanent record, it carries no credit and is not included in calculating the GPA.

The Mark of I: Incomplete

The mark of I (Incomplete) is an exceptional mark, given only if your completed coursework has been qualitatively satisfactory, but you have been unable to complete all course requirements because of extenuating academic or personal circumstances beyond your control.

To be eligible for an I, you must have completed 60 percent or more of the course requirements with an overall grade of C or better for undergraduate courses or B or better for graduate courses.

You must request an I from your faculty member before the class ends. Faculty, however, are not required to approve the request. If your request for a mark of I is approved, you must arrange fulfillment of course responsibilities with your teacher by the assigned deadline to receive credit.

The mark of I is not available for courses graded on a satisfactory/unsatisfactory basis. The doctoral program and master's degree programs requiring DCL 600, PRO 600, and CBR 600 have additional parameters for the mark of I. Consult your course syllabus for detailed information.

The mark of I cannot be removed by means of credit by examination, nor can it be replaced by a mark of W (defined on the following page). If you elect to repeat an incomplete course, you must register again for the course, pay all applicable tuition and fees, and repeat the course. For purposes of academic progress, the course grade is counted as an F. The mark of I is not used in determining grade point averages.

You should be aware that a mark of I in your final semester may delay graduation.

Refer to UMGC Policy 170.71 Policy on Grade of Incomplete at umgc.edu/incomplete and your course syllabus for more information, particularly on deadlines.

The Mark of W: Withdrawal

The mark of W is assigned when you officially withdraw from a course. This mark will appear on your transcript but will not be included in calculating your GPA. For purposes of financial aid, the mark of W is counted as attempted hours. The mark of W can be posted only when you officially withdraw from the course through MyUMGC by the deadline for withdrawal according to the withdrawal process described on p. 13.

Audit

If you do not wish to receive credit, you may register for courses as an auditor once you are admitted. You may choose the audit method when you register or request a change from credit to audit status any time before the end of the first week of classes. As an auditing student, you do not have to complete course assignments, but you may choose to do so to receive faculty feedback on your work. Audited courses are listed on the permanent record, with the notation AU. No letter grade is given for audited courses, nor are credits earned.

The Grade Point Average

Your cumulative grade point average (GPA) is computed at the end of every term (fall, winter, spring, or summer), based on all your graded coursework at UMGC, using the quality points assigned to each grade or mark (detailed on the chart on p. 285). First, the quality-point value of each grade or mark is multiplied by the number of credits; then the sum of these quality points is divided by the total number of credits attempted for which a grade of A, B, C (for courses in which the grade of C is available), D (for undergraduate courses only), F, or FN was received.

Only courses applied toward a second bachelor's degree are computed in the GPA for that degree, even if you earned a first degree at UMGC.

Only courses applied toward a master's degree are computed in the GPA for that degree, even if you earned an undergraduate degree at UMGC.

Changes in Grade

Faculty members may revise a grade previously assigned only if your grade was miscalculated or a mark of I was submitted and must be changed. Any revision must be made no later than four months after the original grade was awarded.

ACADEMIC AND ADMINISTRATIVE REQUIREMENTS

Repeated Courses

Grading Repeated Courses

If you failed or withdrew from a course, you must repeat the course to establish credit in it. In such a case, you must register, pay the full tuition and fees, and repeat the entire course successfully.

When you repeat a course, only the higher grade earned is included in the calculation of your GPA. For purposes of financial aid and satisfactory academic progress, both attempts are counted toward your completion rate. Both grades are entered on the permanent record, with a notation indicating that the course was repeated. You cannot increase the total hours earned toward a degree by repeating a course for which you already earned a passing grade.

If you are enrolled in a second master's degree program, you may not repeat coursework from your first program, even if your second program requires one or more of the courses required in your first program. See p. 107 for more information on earning a second master's degree.

If you are a doctoral student, special rules on repeating courses apply. See below for more information.

Limits on Repeating Courses

UNDERGRADUATE

If you are an undergraduate student, you may not register for the same course more than three times without first speaking to an advisor and submitting a course repeat petition form, which must be on file before the start of the term in which you wish to repeat the course. Your advisor can also explain how repeating the course affects your GPA, transcript notations, and progress toward degree completion. Note that the limit on repeating courses applies only to courses in which you have received a grade. Officially withdrawing from a class and receiving a mark of W is not counted as an attempt for repeat limits.

GRADUATE

If you are a graduate student and your term or cumulative GPA drops below 3.0, you will be placed on academic probation, and you must successfully (i.e., with a grade of B or better) repeat the course that caused the GPA to fall below 3.0 and earn no further grades of C, F, or FN during the probation period. For more information, see Graduate Academic Standing on p. 289.

If you are a doctoral student, you must repeat any course in which you earned a grade below B and may exercise the option to repeat a course only once. If you receive a second grade below B, you will be dismissed from the doctoral program, regardless of your GPA. See p. 290 for more information on doctoral program standards.

Institutional Credit

A course that may not be applied toward graduation may be assigned a credit value for purposes of course load per session and tuition. This institutional credit is included in your GPA and in determining your eligibility for financial aid, tuition assistance, and veterans educational benefits. However, if you are required to take these courses, you do so in addition to the credit required for the degree.

Academic Standing and Levels of Progress

UMGC assesses your academic standing at the end of every term. Your GPA is computed for all UMGc graded coursework to make a determination of academic standing according to your level of progress as described below.

For details, see UMGc Policy 158.00 Undergraduate Academic Levels of Progress and UMGc Policy 158.01 Academic Standing Status for Graduate Students, both available online at umgc.edu/policies.

Undergraduate Students

UNDERGRADUATE LEVELS OF PROGRESS

At the undergraduate level, there are four levels of academic progress: satisfactory, warning, probation, and dismissal.

Satisfactory

If your cumulative grade point average is 2.0 or higher, you are considered to be making satisfactory progress.

Warning

If your cumulative GPA is less than 2.0, you will be placed on academic warning. You will remain on academic warning as long as your cumulative GPA is less than 2.0 but your GPA for the term is 2.0 or higher.

While on academic warning, you are limited to a maximum enrollment of 7 credits per standard term until your academic progress status returns to satisfactory.

Probation

If you are on academic warning and your GPA for the term is less than 2.0, you will be placed on probation. If you were admitted in provisional status because your GPA at a previous institution was below 2.0 (within two years of admission to UMGc) and your GPA for the term is less than 2.0, you will be placed on probation.

If your GPA for the term is 2.0 or higher while you are on probation, but your cumulative GPA is less than 2.0, you will return to academic warning or provisional admission status.

While on academic probation, you are limited to a maximum enrollment of 7 credits per standard term until your academic progress status returns to satisfactory.

ACADEMIC AND ADMINISTRATIVE REQUIREMENTS

Dismissal

If you are on probation and your GPA for the term is less than 2.0, you will be dismissed. Once dismissed, you must apply for reinstatement if you wish to continue studies with UMGC. Your application for reinstatement must be approved before you are eligible to register again for UMGC courses.

If you are on probation and your GPA for the term is 2.0 or higher, you will not be dismissed, regardless of your cumulative GPA.

REINSTATEMENT AFTER DISMISSAL FROM AN UNDERGRADUATE PROGRAM

If you have been dismissed from an undergraduate program, you are required to wait at least one semester before petitioning to return. To submit a request for reinstatement, contact the Reinstatement Committee at reinstatements@umgc.edu to request a Reinstatement Request Form, then submit the completed form, personal statement, and documentation to the Reinstatement Committee for consideration. You will be required to show that you have improved your academic skills and made changes in your academic strategies that increase your likelihood for success in undergraduate studies, should you be approved for reinstatement.

If you are approved for reinstatement, you will be admitted and placed on academic warning. You may also be required to meet additional conditions, such as working with a coach or tutor or enrolling in specific courses. You must earn a 2.0 or higher to avoid academic probation.

If you have questions about the reinstatement process, speak with an academic advisor or email reinstatements@umgc.edu.

Master's Degree Students

GRADUATE ACADEMIC STANDING

At the graduate level, there are three levels of academic standing: good academic standing, academic probation, and academic dismissal. Doctoral students may also be in academic jeopardy as a result of performance on the comprehensive examinations.

As a graduate student, you must maintain a cumulative and term GPA of 3.0 or higher at all times to remain in good academic standing.

Good Academic Standing

If you have a term and cumulative GPA of 3.0 or higher, you are in good academic standing.

Academic Probation

If you have a term or cumulative GPA below 3.0, you will be placed on academic probation in your next term of enrollment. Academic probation is a temporary status. If you are placed on academic probation, you have up to two terms of enrollment in which to restore your GPA to 3.0. During that time, you must enroll only in the course(s) for which you received a grade that caused your cumulative or term GPA to drop below 3.0; you may not attempt any other coursework until you earn a grade of B or better in the repeated course(s).

Failing to restore your GPA to 3.0 or higher or earning any grade below B while on probation will result in academic dismissal. If you restore your GPA to 3.0 or higher, you will be returned to good academic standing. You should seek guidance and advice from an academic advisor if you are placed on academic probation.

Dismissal

If you are on academic probation and you fail to raise your GPA to 3.0 or higher or if you earn a grade below B during the probationary period, you will be dismissed. Once dismissed, you are ineligible to enroll in UMGC graduate courses and may be readmitted to UMGC only under the conditions for reinstatement or restart described in the following paragraphs.

REINSTATEMENT AFTER DISMISSAL FROM A GRADUATE PROGRAM

If you were academically dismissed from a master's degree program at UMGC, you may submit one request for reinstatement. Contact the Reinstatement Committee at reinstatements@umgc.edu and request a Reinstatement Request Form, then submit the completed form and documentation to the Reinstatement Committee for consideration. You will be required to show that you have improved your academic skills and made changes in your academic strategies that increase your likelihood for success in graduate studies, should you be approved for reinstatement.

If you are approved for reinstatement, you will be admitted for one term and placed on academic probation. You may also be required to meet additional conditions, such as working with a coach or tutor or enrolling in specific courses. By the conclusion of this term, you must be in good academic standing to remain enrolled.

If you are reinstated to the same program in which you were last enrolled, you must immediately repeat the course(s) for which you received the grade(s) that caused your cumulative GPA to drop below 3.0. If you are reinstated to a different program, your previous coursework and credits will not apply.

ACADEMIC AND ADMINISTRATIVE REQUIREMENTS

If you fail to attain a cumulative GPA of 3.0 or higher or if you earn a term GPA below 3.0, you will be academically dismissed, and you will not be eligible to apply for reinstatement or a restart again.

If you have questions about the reinstatement process, speak with an academic advisor or email reinstatements@umgc.edu.

RESTART AFTER DISMISSAL FROM OR ACADEMIC PROBATION IN A GRADUATE PROGRAM

If you were academically dismissed from a graduate program, have not been approved for reinstatement (as described in the preceding section), and have not attended graduate classes for a period of at least five consecutive years, you may request a one-time restart. You may also request a one-time restart if you were on academic probation when you last attended and have not attended graduate classes for a period of at least five consecutive years. Grades and credits previously earned will not apply toward any program you pursue upon your return, and you must fulfill the program requirements in effect at the time you restart.

Doctoral Students

ACADEMIC STANDING

The doctoral programs require more than maintaining a GPA of 3.0 to remain in good standing. If you receive a grade below B in a course, including a dissertation course, you must repeat that course in the next term of enrollment and earn a grade of B or better. The option to repeat a course may be exercised only once. If you receive a second grade below B, you will be dismissed from the doctoral program, regardless of your GPA.

Further information is available in section III. D. of UMGC Policy 158.01 Academic Standing Status for Graduate Students (umgc.edu/policies).

Program Completion Requirements

The award of degrees and certificates is conditional upon satisfactory completion of all program requirements, compliance with all UMGC policies, and satisfactory or good academic standing (described on pp. 288 and 289). Graduation clearance will not be granted if you are not in good academic standing, have outstanding debt to UMGC, or have any outstanding misconduct charges or unsatisfied sanction restrictions. Individual programs may have additional requirements that must be met before graduation clearance can be granted.

Scholastic Recognition

Honor Societies

Honor societies are national organizations that celebrate the scholarship and leadership of students in specific fields of study. The honor societies represented at UMGC meet our high academic standards, and membership is a privilege that can enhance your academic and professional stature. Contact information for each honor society chapter can be found online at umgc.edu/honor-societies. Many honor societies process new membership applications only once or twice a year. If you receive an invitation to an honor society, you should first check that it is listed on the UMGC website or in this catalog before joining. The descriptions that follow indicate whether an honor society is open to undergraduate students, graduate students, or both.

Alpha Sigma Lambda

Alpha Sigma Lambda is a nationally recognized honor society that celebrates the scholarship and leadership of adult undergraduate students in higher education. Members of Alpha Sigma Lambda are highly motivated adult students who are pursuing their undergraduate education and managing the responsibilities of work and family while studying. To qualify for membership, you must be pursuing a first associate or bachelor's degree; have completed at least 24 credits at UMGC in courses graded A, B, C, D, or F; and maintained a GPA of 3.7 or higher in all UMGC courses. At least 15 credits, from UMGC or transferred, must be in courses outside the major.

IMA Accounting Honor Society

The IMA (Institute of Management Accountants) Accounting Honor Society recognizes and honors academic achievement in the study of accounting and provides an opportunity for undergraduate and graduate students to differentiate themselves as they begin their career journeys. To be eligible, you must be enrolled in an accounting or finance program at UMGC, have taken a minimum of three accounting courses, and have a GPA of 3.0 or higher overall and in your accounting courses. If you are an undergraduate student, you must also have completed at least 60 undergraduate credits.

If you are interested in joining the honor society, apply directly via the IMA Accounting Honor Society website at imanet.org/iahs. You will need to include a transcript with your application.

ACADEMIC AND ADMINISTRATIVE REQUIREMENTS

Lambda Epsilon Chi

Lambda Epsilon Chi is the national honor society founded by the American Association for Paralegal Education (AAfPE), which recognizes the scholarship and leadership of students in higher education. There are more than 170 chapters throughout the United States and thousands of inductees who have been honored for their outstanding academic achievements.

Membership is by invitation only. To be eligible for membership, you must demonstrate superior academic performance, as evidenced by an overall GPA of at least 3.25, as well as a GPA of at least 3.5 in your legal studies classes at UMGC.

National Society of Collegiate Scholars

The National Society of Collegiate Scholars (NSCS) is an honor society recognizing students who have completed fewer than 60 credits toward an associate or a bachelor's degree and have shown academic excellence. The honor society encourages members to participate in honor society, university, and community events and provides resources to enable them to focus on their professional and leadership development. To be eligible, you must be seeking a first associate or bachelor's degree. You must have completed at least 12 credits at UMGC in courses graded A, B, C, D, or F and have a cumulative GPA of 3.4 or higher. In addition, you must have completed between 12 and 59 credits toward your degree.

Phi Alpha Theta

As a UMGC undergraduate student, you may qualify for membership in Phi Alpha Theta, the international honor society in history. To qualify for membership, you must attain a GPA of 3.5 or higher in at least 12 credits of UMGC history coursework and have an overall UMGC GPA of 3.4.

Phi Kappa Phi

The Honor Society of Phi Kappa 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. If you are an undergraduate student, you must have completed at least 90 credits toward the bachelor's degree, at least 45 of which must have been for UMGC courses carrying letter grades of A, B, C, D, or F, to be eligible. Your GPA in UMGC courses must also be in the top 10 percent of the previous UMGC graduating class. If you are a graduate student, you must be in the final term of your graduate program and in the upper 10 percent of your graduating class.

Pi Gamma Mu

Pi Gamma Mu is the international honor society for the social sciences and recognizes outstanding scholarship in that area at UMGC. Membership is offered to qualified undergraduate students interested in anthropology, criminology, economics, gerontology, history, legal studies, political science, social psychology, sociology, and women's studies. You must have completed at least 45 credits toward your degree to be eligible. If you have earned at least 20 credits in social science coursework (including at least 9 credits at UMGC) and have a GPA of 3.6 or higher, you may be invited to join.

Pi Lambda Theta

Pi Lambda Theta, one of the nation's most prestigious education honor societies, was designed to advance education as a profession. The society honors the accomplishments of exemplary educators and supports the continuing development of knowledge and skills of education students. Membership is open to students in the Master of Arts in Teaching program. To be eligible, you must have completed at least 12 credits in the program with a minimum GPA of 3.5.

SALUTE

SALUTE (which stands for Service, Academics, Leadership, Unity, Tribute, Excellence) is the first national honor society established for student veterans and military servicemembers in two-year and four-year institutions of higher education. Members include retirees, disabled veterans, active-duty military, National Guard members, and reservists who are returning to higher education, starting second careers, or helping fund their college careers with military service.

To be eligible for SALUTE, you must be currently enrolled at UMGC, currently serving in or honorable discharged from the military, have completed at least 12 credit hours with UMGC, have served as a mentor in the One2One mentoring program for at least one term or be an active Vessey Veterans Resource Center (VRC) communicator (posting feedback on articles or to the social wall at least twice per month), display the highest ethical standards, and maintain a GPA of at least 3.0 as an undergraduate student or 3.5 as a graduate student. You are eligible to apply for higher tiers based on your cumulative GPA. To learn more, visit umgc.edu/salute.

Sigma Phi Omega

Sigma Phi Omega is a national academic honor and professional society in gerontology that seeks to promote scholarship, professionalism, friendship, and services to older persons and to recognize exemplary attainment in gerontology and aging studies and related fields. Student membership is open to undergraduate students majoring or minoring in gerontology and aging services,

ACADEMIC AND ADMINISTRATIVE REQUIREMENTS

social science (with a focus on gerontology), and related fields. You must be in at least your second term of enrollment, have completed a minimum of 12 credits at UMGC, and have a GPA of at least 3.3.

Sigma Tau Delta

Membership in Sigma Tau Delta, the international English honor society, is open to qualified undergraduate UMGC students with a major in English. To be eligible, you must have earned at least 45 credits toward the bachelor's degree with an overall GPA of 3.5 or higher. At least 30 credits must have been earned through UMGC and must include 12 credits of English, not including WRTG 112 or WRTG 101, and 6 credits of upper-level coursework. You must also have earned a GPA of 3.6 or higher in English major coursework at UMGC.

Upsilon Phi Delta

Upsilon Phi Delta is a national academic honor society founded by the Association of University Programs in Health Administration for students in healthcare management and policy and designed to recognize, reward, and encourage academic excellence in the study of healthcare administration. To be eligible as an undergraduate student, you must have a cumulative GPA of 3.25 or higher and at least 18 credits of coursework in health services management with a GPA of 3.25 or higher in those courses. If you are a graduate student, you must have a cumulative GPA of 3.5 or higher and at least 18 credits of graduate coursework.

Upsilon Pi Epsilon

The Kappa Chapter of Upsilon Pi Epsilon, the international honor society for the computing and information disciplines, is open to undergraduate and graduate students. To be eligible as an undergraduate student, you must be pursuing a bachelor's degree with a major in the computing and information disciplines and must have completed at least 45 credits. You should have completed at least 30 credits at UMGC in courses graded A, B, C, D, or F, including at least 15 credits in the computing and information disciplines, and must have a GPA of at least 3.5 overall and in all computing and information systems coursework. If you are a graduate student, you may be considered for membership if you are pursuing one of the following degrees: MS in Cloud Computing Architecture, Cyber Operations, Cybersecurity Management and Policy, Cybersecurity Technology, Data Analytics, Digital Forensics and Cyber Investigation, Information Technology (with a specialization in database systems technology, informatics, information assurance, software engineering, or systems engineering), or Management (with a specialization in information systems and services). To qualify for graduate-level membership, you must have completed at least 18 credits at UMGC toward your degree, with a cumulative GPA of 3.5 or higher.

Undergraduate Scholastic Recognition

Academic Honors

Academic honors for excellence in scholarship are determined by your cumulative GPA at UMGC. The distinction of *summa cum laude* is conferred on those undergraduate students with a cumulative GPA of 4.000; *magna cum laude* honors are conferred on those with a cumulative GPA of 3.901 to 3.999; *cum laude* honors are conferred on those with a cumulative GPA of 3.800 to 3.900. To be eligible for any of these categories of recognition, you must have earned at least 30 credits at UMGC in courses for which a letter grade and quality points were assigned. For honors to be conferred with a second bachelor's degree, you are required to have a total of 30 new UMGC credits and the requisite GPA. (See p. 42 for more information on attaining a second bachelor's degree.)

Dean's List

The dean's list is calculated at the end of each term. To be eligible for the dean's list, you must have completed at least 6 credits (in courses graded A, B, C, D, or F) during the term, earned a GPA of at least 3.5 for the term, and maintained a cumulative GPA of 3.5 at UMGC.

All courses taken during the term are used in computing the GPA, even though the total number of credits may exceed 6. A term is designated as fall, spring, or summer.

If you make the dean's list, you will be notified via email of your achievement by the Office of the Dean of your school.

Responsibilities of the Student

Attendance and Participation

You are responsible for attending all on-site and online classes and any related activities regularly and punctually. Faculty members may base part of the final grade on class participation.

According to the university's definition of a unit of credit (described in Policy 160.00), you should expect to spend 42 to 45 hours on coursework (online or on-site class discussions and activities, additional study, readings, and preparation of assignments) for each credit you earn. As a rule of thumb, you should expect to devote at least three hours of outside study each week for every credit in which you are enrolled. For example, you would need to devote at least nine hours per week to outside study for a 3-credit course.

ACADEMIC AND ADMINISTRATIVE REQUIREMENTS

You are expected to achieve the same intended learning outcomes and do the same amount of work in an online course as you would in an on-site course. Active participation is required in all courses, whether they are online or on-site with an online component, and you should expect to log in to your courses several times a week.

Absence from class does not excuse you from missed coursework. You are responsible for completing any missed coursework, as indicated in the course syllabus, and obtaining detailed information about missed class sessions, including content, activities covered, and any announcements or assignments. Failure to complete any required coursework may adversely affect your grade. Faculty members are not expected to repeat material that you missed because of your absence from class.

You may not give permission to another person to accompany you to an on-site class meeting, to attend an on-site class meeting in your place, or to access or attend your online class, except as part of reasonable accommodations arranged through Accessibility Services.

Academic Integrity

Integrity in teaching and learning is a fundamental principle of a university. As a member of the International Center for Academic Integrity (academicintegrity.org), UMGC subscribes to the center's definition of academic integrity as "a commitment, even in the face of adversity, to six fundamental values: honesty, trust, fairness, respect, responsibility, and courage." UMGC believes that all members of the university community share the responsibility for academic integrity.

As a UMGC student, you are expected to conduct yourself in a manner that will contribute to the maintenance of academic integrity in accordance with the university's philosophy of academic integrity (umgc.edu/integrityphil). All forms of academic misconduct, defined as actions that create an unfair academic advantage, are a violation of the principles of academic integrity and will not be permitted. Attempts to engage in academic misconduct or to assist others in doing so are prohibited. Resources to help you uphold the highest standards of academic integrity are available at umgc.edu/academicintegrity. UMGC's complete Academic Integrity policy is available at umgc.edu/academic-integrity.

Intellectual Property

The primary mission of universities is to create, preserve, and disseminate knowledge. When that knowledge takes the form of intellectual property, a university must establish a clear and explicit policy that will protect the interests of the creators and the university while ensuring that society benefits from the fair and full dissemination of that knowledge. UMGC's policy on intellectual property is available online at umgc.edu/intellectual-property.

Course Load

See UMGC's Policy 215.00 on Student Academic Load and Enrollment Status at umgc.edu/policies for more information.

Undergraduate

For undergraduate students, full-time enrollment is defined as 12 or more credits per term and half-time as 6 to 11 credits per term (fall, spring, or summer). Decisions on the number of courses you can successfully complete in any one session are normally left to your discretion.

Most UMGC students register for between 3 and 7 credits per term, and you are strongly advised not to exceed this limit. Carefully and realistically assess your other commitments before you register for more than 7 credits. You may not register for more than 18 credits in a 17-week period without written permission from the Office of the Dean of your school.

To initiate the permission process, contact your academic advisor. Permission to register for more than 18 credits is at the university's discretion and is based on demonstrated academic excellence at UMGC. A minimum GPA of 3.5 and an enrollment history indicating success in carrying a heavier-than-average course load at UMGC are required.

You may not register for on-site or hybrid courses whose scheduled meeting times overlap.

Graduate

FOR MASTER'S DEGREE PROGRAMS

If you are enrolled in a program that operates on a three-term calendar for the academic year, you are considered a full-time graduate student if you are registered for at least 9 credits of graduate coursework per term and half-time if you are enrolled for 6 credits per term.

If you are enrolled in a program that operates on a four-term calendar for the academic year, you are considered a full-time graduate student if you are registered for 6 credits per term.

Given the time commitment required for graduate study, the normal academic load is 6 credits per term. UMGC strongly recommends that you limit your academic load to conform with the demands of your employment and the time you have to prepare for class.

Taking more than 6 credits per term is not allowed in the MS in Data Analytics program or any program that operates on a four-term calendar but may be allowed in programs that operate on a three-term calendar, if certain conditions are met.

ACADEMIC AND ADMINISTRATIVE REQUIREMENTS

If you have a compelling need to take more than 6 credits per term (and are enrolled in a program that allows course overloads), you may submit to your advisor a written request to take 3 additional credits of coursework (i.e., one additional course). You must have fulfilled the prerequisites for the additional course you wish to take. In the request, you must indicate your acceptance of the academic risk entailed in adopting the course overload.

To be considered for a course overload, you must

- Be a degree- or certificate-seeking student
- Have a 3.0 GPA

FOR THE DOCTORAL PROGRAM

If you are enrolled in a doctoral program, you are considered full-time if you are registered for 6 credits.

Given the time commitment required for graduate study, the maximum course load for the doctoral program is 6 credits per term.

Because courses in the doctoral program follow a defined sequence and build on competencies developed in previous coursework, course overloads are not allowed in this program.

Appealing a Grade

The established performance standards for a course grade are communicated in the syllabus and other course materials. If you believe that your grade was not based on such standards, you may pursue the appeal process for arbitrary and capricious grading. Procedures for appealing a grade are detailed in UMGC Policy 130.80 Procedures for Review of Alleged Arbitrary and Capricious Grading, which is available online at umgc.edu/policies, as well as from the Office of Academic Integrity and Accountability.

There is a time limit for appealing a grade; if you want to appeal a grade, you must initiate the process by requesting a conference with the faculty member to discuss how the grade was calculated within 30 calendar days of the posting of the grade. If you have conferenced with a faculty member with no resolution, contact integrity@umgc.edu with an explanation of how you believe that your grade situation fits the definition of arbitrary and capricious grading as provided in the policy.

Grievance and Appeal Procedures

If you have legitimate complaints about faculty, staff members, academic departments, or administrative units, contact the Office of the Dean of your school. Email addresses are provided on pp. 24–26.

To file a formal complaint concerning the actions of members of the UMGC faculty or administrative staff, you must follow the procedures detailed in UMGC Policy 130.70 Student Grievance Procedures, which is available at umgc.edu/policies as well as from the Office of Academic Integrity and Accountability. If you wish to seek redress for the acts or omissions of a faculty or staff member, you must first request a conference with that person and attempt to resolve the complaint informally within 14 calendar days of the alleged act or omission. If you have attempted resolution within the academic program without a satisfactory outcome, email integrity@umgc.edu and include information required by the grievance policy linked above.

If you are not satisfied with the outcome of your student grievance, you may submit your complaint to an external entity. Contact information for external entities is available at umgc.edu/external-complaint.

If you wish to file a complaint about discrimination or harassment, you must follow the procedures detailed in UMGC Policy Affirmative Action and Equal Opportunity, available at umgc.edu/eeo. You can file a complaint regarding discrimination or harassment at fairpractices@umgc.edu. You may file a complaint regarding sexual misconduct at titleixcoordinator@umgc.edu.

Connectivity and Technical Fluency

UMGC is committed to ensuring that you have access to up-to-date resources and acquire the level of fluency in information technology you need to participate actively in contemporary society.

As a UMGC student, you must own or have access to a personal computer, have access to the internet, and have a current email address. You must be prepared to participate in asynchronous, computer-based class discussions, study groups, online database searches, course evaluations, and other online activities whether your course is held online or in a classroom.

You must also be able to reach fellow students, faculty, and the university via email. You will be assigned a UMGC account, which includes email, as soon as you register. While you are not required to use the UMGC email address, you must provide and maintain a current email address through MyUMGC (my.umgc.edu).

ACADEMIC AND ADMINISTRATIVE REQUIREMENTS

In addition, you are expected to have a working knowledge of and access to a basic word processing program, such as Microsoft Word; a spreadsheet program, such as Microsoft Excel; internet email services; Microsoft Windows; and the World Wide Web.

The most current technical requirements are available online at umgc.edu/techreq.

Examinations

Proper placement in critical core courses helps ensure your success and allows you to advance more quickly toward your degree goals. UMGC offers complimentary placement testing to help determine the most appropriate course in certain foreign languages for your academic success.

You are not required to take a writing placement exam before you register for a writing course at UMGC.

Contact Exams and Testing Services by phone at 800-888-8682, ext. 2-2600, or by email at exams@umgc.edu.

Change of Address

If you move while enrolled at UMGC, you must notify UMGC by updating your personal information in MyUMGC.

Transfer of Credits from UMGC

To have credits earned through UMGC transferred to another institution, you must obtain authoritative guidance from the institution to which you intend to transfer—even if it is another institution in the University System of Maryland. The transferability of credits earned is always at the discretion of the receiving institution. Only that institution can answer specific questions about whether it will accept transfer credit, as well as whether any credits may satisfy its admission, residency, and degree requirements or apply to its curricula.

Code of Civility

To encourage the development and growth of a supportive and respectful academic environment for all students, faculty, and staff, UMGC has created the Code of Civility, which is available at umgc.edu/civility.

Code of Student Conduct

UMGC Policy 151.00 Code of Student Conduct outlines prohibited conduct and the procedures by which such conduct is addressed. The university reserves the right to take appropriate action to protect the safety and well-being of the UMGC community.

You may be accountable to both civil authorities and to UMGC for acts that constitute violations of law and of this code. Disciplinary action at UMGC normally will go forward pending criminal proceedings and will not be subject to challenge on the grounds that criminal charges involving the same incident have been dismissed or reduced.

In every case of alleged Code of Student Conduct violation, the burden of proof rests with the complainant, who must establish the responsibility of the person accused by a preponderance of evidence. In cases where the complainant wishes to remain anonymous, the burden of proof rests with the administrator.

See umgc.edu/student-conduct for additional information about the UMGC Code of Student Conduct.

FINANCIAL INFORMATION

Payment of Tuition and Fees

UMGC requires that you pay your tuition and fees on time. Due dates are provided at the time of registration and depend on how early you register for courses.

Current Tuition and Fees

Tuition rates and fees are available online at umgc.edu/tuition. Information on student classification and residency is provided at usmd.edu/regents/bylaws/SectionVIII.

Review the fee schedule carefully to see which ones apply to you. Fees are commonly charged for admission and graduation applications, laboratory use (science and computer courses), technology, transcripts, and various options for earning credit (such as Workplace Learning, Prior Learning Portfolio Assessment, and credit by examination). Site-specific fees may apply for courses taken at certain locations. A service charge is assessed for dishonored checks.

Determination of Residency for Tuition Purposes

An initial determination of in-state or out-of-state status for tuition purposes is made when you apply for admission. The determination made at that time remains in effect unless it is successfully challenged. You are responsible for providing the information necessary to establish eligibility for in-state status. Official criteria for determining residency are detailed in USM Policy VIII-2.70 Policy on Student Classification for Admission and Tuition Purposes at usmd.edu/regents/bylaws/SectionVIII/ and UMGC Policy 210.20 Student Residency Classification for Admission, Tuition, and Charge-Differential Purposes at umgc.edu/policies.

Determination of Eligibility for Military Tuition Rate

UMGC's undergraduate military tuition rate applies to

- Active-duty military servicemembers
- Members of the Selected Reserves
- Members of National Guard units

- Members of the Commissioned Corps of the U.S. Public Health Service (USPHS)
- Members of the Commissioned Corps of the National Oceanic and Atmospheric Administration (NOAA)
- The spouses and dependent children of the servicemembers listed above

UMGC's graduate military tuition rate applies to

- Full-time active-duty members of the U.S. Armed Forces
- Members of the Selected Reserves
- Members of National Guard units
- Members of the Commissioned Corps of the USPHS
- Members of the Commissioned Corps of NOAA
- Spouses of full-time active-duty members of the U.S. Armed Forces, members of the Commissioned Corps of the USPHS, and members of the Commissioned Corps of NOAA
- Dependent children of full-time active-duty members of the U.S. Armed Forces, the Commissioned Corps of the USPHS, and the Commissioned Corps of NOAA whose sponsor resides in Maryland, is stationed in Maryland, or claims Maryland as his or her state of residency
- Dependent children of full-time active-duty members of the U.S. Armed Forces, the Commissioned Corps of the USPHS, and the Commissioned Corps of NOAA if the dependent child resides in Maryland and is using the sponsor's transferred Post-9/11 GI Bill® benefits

To secure the military tuition rate, you must provide documentation of your service (or that of your qualifying spouse or parent) no later than 30 days after the date you submit the application for admission. For more information, contact Admissions or check the To Do list in MyUMGC.

If you do not submit sufficient documentation by the deadline, your tuition rate will be charged at the out-of-state rate—unless you have submitted the Residency Questionnaire in MyUMGC and qualify for in-state tuition, in which case your tuition rate will be changed to the in-state rate.

More information about securing the military tuition rate is available at umgc.edu/milrate-procedures. If you have questions about your eligibility or documentation, email residency@umgc.edu.

GI Bill® is a registered trademark of the U.S. Department of Veterans Affairs (VA). More information about education benefits offered by the VA is available at the official U.S. government website at benefits.va.gov/gibill.

FINANCIAL INFORMATION

Payment Deadlines

UMGC requires that you pay your tuition and fees on time. Your payment due dates depend on how early you register for courses. Due dates are provided at the time of registration and are visible in the Account Balance panel in your Student Account Center in MyUMGC.

If you register any time from the beginning of registration through seven days before the class start date, your payment will be due seven days before the class start date. If you register within seven days of the class start date, your payment will be due the day before class starts. If you register on or after the class start date, your payment is due at the time of registration.

Note: All other charges, including application and diploma fees, are due the same day the charges are incurred.

All tuition and applicable fees must be paid by the deadline, unless you

- Applied for financial aid to cover tuition and fees for the session
- Confirmed your status as active-duty military or submitted your military tuition assistance documents
- Requested certification for your veteran's education benefits
- Enrolled in UMGc's interest-free monthly payment plan
- Provided confirmation that you will receive employer-provided tuition assistance

UMGC offers a variety of payment options. Payments can be made via

- Credit card (American Express, Discover, MasterCard, or Visa)
- Money order
- Check (made payable to University of Maryland Global Campus)
- Electronic debit from a checking or savings account
- Cash (in person at Largo only)

Consult the appropriate sections of this chapter for further information about tuition assistance, financial aid, or veterans benefits. More information about different payment options, including the monthly payment plan, is available at umgc.edu/payoptions.

Refunds for Dropping or Withdrawing from a Course

Registering for a course obligates you to pay for it; however, if for any reason you are unable to take a course, you must officially drop or withdraw from the course. See p. 13 for procedures on how to drop or withdrawal from a course.

If you drop a course during the drop period, you will qualify for a full refund of tuition and fees, except for the admission application fee.

If you withdraw during the withdrawal period, you may be refunded a portion of the tuition as determined by the date of withdrawal and the refund schedule posted online at umgc.edu/refunds. All refunds are computed from the date the withdrawal is formally initiated, not from the date of the last class you attended or the last participation date. Refunds are applicable for tuition only. Fees are not refundable.

If your tuition was paid directly through employer tuition assistance, the refund is returned to the employer. If the tuition assistance was only a partial payment, it is returned to the employer, and excess payment is refunded to you.

More information about refunds can be found on the UMGc website.

See the following sections for information on return of military tuition assistance, veterans benefits, and federal return of funds policy for financial aid students.

Dishonored Checks

For each paper or electronic check returned to UMGc by the payer's bank (whether because of insufficient funds, stopped payment, postdating, or drawing against uncollected items), UMGc assesses a service charge of \$30 (over and above any service charges levied by the financial institution).

If you stop payment on a check for tuition, you will be 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.

Indebtedness to the University

If you incur debts to UMGc, you must clear them to be permitted to register. Requests for transcripts and diplomas may be denied until all debts have been paid. Outstanding debts are collected against refunds due to you. After a reasonable period, uncollected debts are forwarded to the Central Collection Unit of the State Attorney General's Office.

The Board of Regents has authorized UMGc to charge students' delinquent accounts for all collection costs incurred by UMGc. The normal collection fee is 17 percent plus attorney and/or court costs. Delinquent accounts are reported to a credit bureau.

FINANCIAL INFORMATION

Ways to Finance Your Education

Monthly Tuition Payment Plan

UMGC offers a cost-effective alternative for students who are budgeting for college tuition: an interest-free, monthly tuition payment plan. This plan allows you to spread all or part of your tuition bills into monthly installments on an academic session basis. All UMGC students are eligible to participate in the payment plan, regardless of financial need. If you are interested in the monthly payment plan, visit umgc.edu/payoptions or call 800-888-8682.

Employer-Provided Tuition Assistance

If an employer is going to pay for part or all of your tuition, at the time of registration you 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, or books) and the amount to be assumed by the employer
- Your full name and student identification number
- The session covered by the document
- The billing address
- The signature and phone number of the authorizing official

If you do not have an authorizing document at the time of registration, you must pay the bill in full and arrange for direct reimbursement from your employer. UMGC cannot issue refunds for authorizing documents submitted after registration.

Documents that restrict payment or are in any way conditional will not be accepted. If the employer does not pay UMGC, you are responsible for payment.

Financial Aid

UMGC's Financial Aid Office administers a variety of financial assistance programs—including grants, scholarships, and loans—to help you meet the costs of your educational goals. Aid is available for students who demonstrate financial need, academic merit, or both.

General Eligibility Requirements

To be eligible for federal student aid and most UMGC need-based assistance, you must

- Be admitted to UMGC as a degree-seeking or eligible certificate-seeking student
 - Be a U.S. citizen or an eligible noncitizen
 - Be enrolled half-time for most federal programs
- Note:** Audited courses, some repeated courses, credit by examination, and credits earned through Portfolio Assessment cannot be counted toward enrollment status.
- Demonstrate satisfactory academic progress toward a degree or certificate according to UMGC policy
 - Have a high school diploma or GED
 - Possess a valid Social Security number
 - Register with Selective Service, if required to do so
 - Not be in default on any federal student loans, nor have borrowed in excess of loan limits, nor owe a refund on any grant under Title IV federal student aid programs
 - Not be convicted for the possession or sale of illegal drugs during the time you were receiving any type of federal financial aid

The Financial Aid Application Process

You must complete the Free Application for Federal Student Aid (FAFSA) to be considered for federal, most state, and institutional financial aid at UMGC. The FAFSA (which is available online at fafsa.ed.gov) must also be completed if you wish to be considered for need-based Maryland state grants and scholarships. UMGC's school code is 011644. The FAFSA form must be submitted by the federal deadline each year; many states also set priority deadlines by which you must submit the form to be considered for aid programs they administer. UMGC encourages you to complete the FAFSA as soon as you have decided on your academic career. For more information, visit umgc.edu/apply-for-aid.

Financial Aid Programs

Financial Aid programs are available to both full- and part-time students. UMGC may offer the following types of financial aid: grants, scholarships, and loans. In most cases, at least half-time enrollment is required. (Full- and part-time status is explained on p. 293.)

Eligibility for federal financial aid is determined each year based on data submitted on the FAFSA. Following is a description of programs currently available at UMGC.

FINANCIAL INFORMATION

GRANTS AND SCHOLARSHIPS

UMGC offers and administers many different types of grant and scholarship programs from various sources. The following are the main categories of scholarships and grants that are available to eligible UMGC students.

Note: This list is not exhaustive and is subject to change.

Federal Grants

The federal government provides grants for students attending college. Most types of grants are sources of money that generally do not have to be repaid.

- The Federal Pell Grant is a grant program for high-need, first-time undergraduate students. Award amounts vary by need level and enrollment status.
- The Federal Supplemental Educational Opportunity Grant (SEOG) offers need-based awards for high-need students who are seeking their first undergraduate degree. The amount and number of awards vary depending on the availability of funds allocated by the U.S. Department of Education. Typical awards are up to \$400 per semester.

More information is available at umgc.edu/grants.

UMGC Institutional Scholarships and Grants

UMGC allocates a portion of its operating funds to help students with demonstrated financial need afford their coursework. Most institutional funds are provided as part of the regular award packaging process and do not require a separate application. Below are two of the most commonly provided institutional scholarships:

- The UMGC President's Grant offers up to \$1,400 per year to select students with demonstrated need who are enrolled in at least 3 credits of coursework per semester.
- The UMGC President's Scholarship offers up to \$2,000 per year (fall and spring semesters only) to select students with demonstrated need and a GPA of 3.0 or higher who are enrolled in at least 6 credits of coursework per semester.

Foundation Scholarships

Generous donors to UMGC have provided many different scholarship funds, each with its own specific criteria. If you meet the general eligibility requirements for donor-funded scholarships, you will receive an invitation by email (and in the student portal) each spring semester. This application is the only one needed for consideration for nearly all donor-funded scholarships. An invitation to apply for these scholarships does not guarantee funding, as funds are limited.

In general, to be eligible for these scholarships you must

- Be enrolled as a degree-seeking student
- Have a current FAFSA on file, demonstrating financial need
- Have successfully completed 15 credits (if you are an undergraduate student) or 9 credits (if you are a graduate student) in courses taken at UMGC
- Meet satisfactory academic progress standards (described in a following section)
- Maintain a cumulative GPA of 3.0
- Maintain at least half-time registration each fall and spring semester

Maryland Higher Education Commission (MHEC) Programs

The state of Maryland offers many different grant and scholarship programs to eligible students. The MHEC website (mhec.state.md.us) is the best source for current information about the different programs available to UMGC students and application deadlines. Note that some deadlines are early. For more information, contact the Maryland Higher Education Commission Office of Student Financial Assistance at 410-767-3300 or 800-974-0203 or visit the website.

UMGC Completion Scholarship

UMGC offers this scholarship to undergraduate students who meet the following criteria:

- Be a current Maryland resident receiving the in-state tuition rate, or an active-duty servicemember
- Have earned an associate degree from a Maryland alliance community college
- Be pursuing a first bachelor's degree with UMGC
- Maintain a term and cumulative GPA of 2.0 and meet the university's requirements for satisfactory academic progress
- Successfully complete at least 3 credits every fall and spring semester (Summer courses are also eligible for Completion Scholarship funding; all regular requirements must be met in any optional summer registration.)
- Have completed no more than 12 credits at UMGC before receiving the scholarship

Qualifying students can receive the UMGC Completion Scholarship for up to 60 credits taken at UMGC.

FINANCIAL INFORMATION

Private and Third-Party Scholarships

Outside agencies, such as social clubs or volunteer organizations, may offer scholarship funds to UMGC students to assist with education costs. These agencies provide funding either directly to you (the student) or directly to UMGC for processing and administration. The Financial Aid Office ensures that students receiving these funds maintain eligibility per the requirements of the individual agencies.

For more information on scholarships, visit umgc.edu/scholarships.

LOANS

Loan programs are available to students enrolled in at least half-time status each semester. If you take loans to pay for college expenses, you must repay the principal and interest in accordance with the terms of the promissory note.

The Federal Direct Loan program offers low-interest federal loans. Loan amounts vary based on your career level (i.e., undergraduate or graduate), grade level, and dependency status. Repayment begins six months after you leave school or your attendance drops below half-time. For annual eligibility amounts and general repayment terms, visit umgc.edu/direct-loan.

The Federal Direct PLUS Loan Programs are loans for graduate students and parents of dependent undergraduate students to help pay for education expenses not covered by other financial aid. Eligibility is not based on financial need, but a credit check is required. Borrowers who have an adverse credit history must meet additional requirements to qualify. Repayment begins as soon as the loan is fully disbursed; however, there is an option to defer payments while you meet certain enrollment criteria.

Private student loans are made by private organizations—such as banks, credit unions, and state-based or state-affiliated organizations—and have terms and conditions that are set by the lender. If your financial aid does not meet your financial need, you may be able to borrow up to your cost of attendance through a private student loan program. These education loans are not federal loans; you borrow directly from and make payments to the lender. Private student loans usually have higher interest rates than federal loans. UMGC encourages you to apply for federal student aid before seeking alternative private loan options. If you are interested in a private student loan, contact the lender of your choice.

For more information on federal student financial aid programs, visit umgc.edu/financial-aid. More information on loan repayment is available at umgc.edu/loan-repayment.

UMGC Financial Aid Standards for Satisfactory Academic Progress

If you receive financial aid, federal regulations require you to maintain satisfactory academic progress toward your degree or certificate. If you fail to meet the minimum requirements, you are not eligible to receive financial aid. Review the complete Satisfactory Academic Progress policy for financial aid students, including details of the appeal process, at umgc.edu/sap.

Federal Return of Funds Policy

Federal financial aid is offered under the assumption that you will attend and participate in classes for the entire period for which the aid has been offered. If you receive Title IV funds and do not attend or participate for the entire period for which you have been given aid, the university is required by federal regulation 34 CFR 668.22 to perform a Return of Title IV Funds calculation. The requirement to perform such a calculation is triggered by any of the following actions occurring on or before the 60 percent point of your enrollment period:

- Course cancellation
- Disenrollment
- Never participating in a class
- Ceasing to participate in a class
- Dropping a course
- Withdrawing from a course

If you certify your intent to return later within the same term in which you dropped or withdrew from class, the Financial Aid Office will not perform a return of funds calculation—unless you do not return as scheduled.

When the Financial Aid Office performs a return of funds calculation, unearned funds are returned to the Department of Education. This can result in a balance owed to UMGC. You are then responsible for repaying the outstanding debt, or it will be transferred to the state Central Collection Unit.

If you are using federal financial aid, you are strongly encouraged to contact the Financial Aid Office before dropping or withdrawing to fully understand the impact on your current and future financial aid.

Visit umgc.edu/enrollmentchanges for further information.

FINANCIAL INFORMATION

For More Information

If you need additional information, visit the Financial Aid Online Support Center at umgc.edu/help to email, chat, request a call, or view the extensive list of frequently asked questions in the Knowledge Base.

Note: If you are a resident of Washington state and are interested in information and resources about student loan repayment or wish to submit a complaint to the Washington Student Achievement Council regarding your student loans or student loan servicer, visit wsac.wa.gov/loan-advocacy or contact the student loan advocate at loanadvocate@wsac.wa.gov.

Military Tuition Assistance

If you are serving in the Navy, Marine Corps, or Coast Guard, you must contact your education center to request a tuition assistance form. A tuition assistance form signed by the education coordinator must be submitted at the time of registration using one of the methods listed at umgc.edu/milta.

If you are serving on active duty in the U.S. Army or are a member of the Army National Guard or Army Selected Reserves and intend to use military tuition assistance benefits, the funds will be transferred directly to the university upon your registering for classes through the GoArmyEd portal (GoArmyEd.com).

If you are serving in the Air Force, you may submit your tuition assistance forms via the Air Force Virtual Education Center (AFVEC) portal. If you are the spouse of a servicemember eligible to utilize MyCAA (My Career Advancement Account) benefits, you may also submit your tuition assistance via the AFVEC portal.

Return of Unearned Military Tuition Assistance Funds

Military tuition assistance funds are awarded under the presumption that you will attend and participate in classes over the entire period for which the funds have been awarded. If you receive military tuition assistance funds and do not attend or participate for the entire period for which funds were provided, the university is required by the Department of Defense to perform a Return of Unearned Military Tuition Assistance funds calculation. The requirement to perform such a calculation is triggered by any of the following actions occurring on or before the 60 percent point of your enrollment period:

- Course cancellation
- Disenrollment
- Never participating in a class
- Ceasing to participate in a class
- Dropping a course
- Withdrawing from a course

A return of funds calculation is based on the last documented date of attendance or participation in the class or the date the drop, withdrawal, cancellation, or disenrollment is initiated. When a return of funds calculation occurs, unearned funds are returned to the Department of Defense. This can result in you owing a balance, which is your responsibility to repay to UMGC. To learn more about course withdrawal and return of military tuition assistance, see UMGC Policy 170.72 Course Withdrawal at umgc.edu/policies.

Any requests for exceptions to UMGC Policy 170.72, including requests related to dropping or withdrawing from a class because of military service obligations, must be submitted within 90 days of the last day of the term during which you dropped or withdrew from the class. For more information, contact Student Resolution and Judicial Affairs at exception.request@umgc.edu.

If you are using military tuition assistance, you must contact your military education counselor or education services officer for guidance on drops or withdrawals related to emergencies or official duty requirements before dropping or withdrawing from a class to fully understand the impact of such an action on your current and future military tuition assistance benefits.

For more information about the return of military tuition assistance funds, visit umgc.edu/return-milta.

Veterans Benefits

You may apply for the following educational assistance programs administered by the U.S. Department of Veterans Affairs (VA):

- The Montgomery GI Bill—Active Duty Educational Assistance Program (MGIB, Chapter 30)
- Vocational Rehabilitation (Chapter 31)
- The Post-Vietnam Era Educational Assistance Program (Chapter 32)
- The Post-9/11 GI Bill (Chapter 33)
 - Yellow Ribbon Program
 - Transfer of Post-9/11 GI Bill Benefits to Dependents
 - Marine Gunnery Sergeant John David Fry Scholarship
- The Survivors' and Dependents' Educational Assistance Program (Chapter 35)
- Montgomery GI Bill—Selected Reserve Educational Assistance Program (Chapter 1606)
- Montgomery GI Bill—Reserve Educational Assistance Program (Chapter 1607)

Detailed information on all assistance programs is available on the UMGC website at umgc.edu/vabenefits or on the VA website at gibill.va.gov.

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Application Procedures

If you are eligible for educational benefits from the VA, you should review the online information and application procedures at umgc.edu/vabenefits. Every educational assistance program requires different paperwork and documentation to process a claim. Initial applications for benefits should be submitted online directly to the VA. You must also complete a UMGC request for certification form each session you wish to receive benefits. The VA processes claims and issues payment six to eight weeks after receiving completed paperwork, which may be submitted no earlier than two weeks before class starts.

Amounts and Methods of Payment

The amount of money you may receive from the VA depends on the educational assistance program for which you are eligible, the number of credits for which you are registered, the length of the session, and (for certain programs) the number of dependents you have. The current monthly payment for each educational assistance program is available online at gibill.va.gov.

Benefit Provisions Related to Pending Payments

In accordance with Title 38 US Code 3679 subsection (e), UMGC adopts the following additional provisions for any students using VA Post-9/11 GI Bill (Ch. 33) or Vocational Rehabilitation and Employment (Ch. 31) benefits while payment to the university is pending from the VA. UMGC will not

- Prevent your enrollment
- Assess a late penalty fee
- Require you to secure alternative or additional funding
- Deny you access to any resources (access to classes, libraries, or other institutional facilities) available to other students who have satisfied their tuition and fee bills to the institution

However, to qualify for this provision, you may be required to

- Produce the VA Certificate of Eligibility by the first day of class
- Provide a written request to be certified
- Provide additional information needed to properly certify the enrollment as described in other institutional policies

Evaluation of Prior Training

When you file a claim for educational benefits, the VA requires your previous training and coursework to be evaluated so that you receive correct transfer credit. If you are an undergraduate student, you must have an academic advisement report completed during your first session of enrollment. If you do not comply, you may find future benefits delayed. After your first registration, you are provided with information on the necessary procedure. (Information about sources of credit, including types of training that qualify for undergraduate credit, begins on p. 17; these include military training and service schools, postsecondary education, certain correspondence courses, and credit by examination.) If you have earned graduate credit from a regionally accredited institution, you must have an evaluation completed during the first session of enrollment. (Equivalent credit from other accredited institutions may be considered on a case-by-case basis. If you were educated abroad, see umgc.edu/internationalstudent for additional requirements.) Not complying with this evaluation may delay future benefits. For information on evaluation procedures for study abroad, visit umgc.edu/internationalcredit.

Students' Responsibilities

If you are receiving benefits, you are expected to follow all regulations and procedures of the VA while attending UMGC.

At UMGC, all regulations of the VA are enforced. You should be aware of the following requirements and consequences:

- You are expected to make satisfactory progress toward a degree or certificate; you must comply with the academic standards of UMGC.
- You must report all changes in enrollment—including 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 (i.e., a grade of I, W, or AU) is assigned.
- 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, P, or S was assigned.
- Payment of benefits will be disallowed for any course in which a grade of FN is assigned.
- Payment of benefits will be disallowed for any course that is not a requirement in your degree or certificate program.

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- Payment of benefits will be disallowed for noncredit graduate courses.
- Payment of tuition and fees is required at time of registration, unless you are applying for Chapter 31 Vocational Rehabilitation or Chapter 33 Post-9/11 GI Bill benefits.
- You are responsible for debts caused by overpayment of benefits resulting from reductions of your course load.
- If you are in a program that involves any internship, practicum, or work study, you are required to provide documentation to the Veterans Certification Office verifying the physical location and zip code where the work takes place.

Grievance Information for Virginia Students Using Veterans Educational Benefits

The Virginia State Approving Agency (SAA) is the approving authority of education and training programs for Virginia. The SAA investigates complaints of GI Bill beneficiaries residing in Virginia. While beneficiaries should initially follow the school grievance policy to address complaints, they should contact the SAA office via email at saa@dvs.virginia.gov if the situation cannot be resolved at the school.

Tutorial Assistance

You may qualify for tutorial assistance if you are a veteran, active-duty military servicemember, or reservist receiving funding assistance from the VA and you are enrolled at least half-time. Payments are allowed when you demonstrate deficiency in courses that are required for your degree program.

Work-Study Allowance

If you are registered at least three-quarters time (9 credits) and need money to attend school, you may participate in work-study. Recipients of benefits under the provisions of Chapters 30, 31, 32, 33, 35, and 1606 may be eligible. You may work up to 400 hours during a session and receive either the federal minimum wage or the state minimum wage, whichever is greater.

For Further Information

Information and applications are available from your advisor or at umgc.edu/vabenefits on the UMGC website. For information on qualifying for the in-state tuition rate as a veteran or eligible dependent, see Determination of Residency for Tuition Purposes on p. 296.

SERVICES AND RESOURCES

Availability of Services

General Information

UMGC representatives are available at 800-888-8682 to answer general questions and help you navigate UMGC's website. Representatives also can make sure you are signed up to receive important announcements.

UMGC provides numerous services and resources to help you complete your educational program from anywhere in the world—through systems and resources available online; by email, chat, and voice and text telephone communication; and in-person at sites throughout the Maryland area, as well as at many military sites stateside and worldwide. A number of offices are responsible for the delivery of these services, including Accessibility Services, Admissions, Advising, Career Services, Student Financial Services, Information Technology, the Office of the Registrar, and the UMGC Library.

Among these, the Offices of Advising and the Registrar respond to most of your academic needs throughout your college career, providing general information; admission assistance; academic advising; registration, graduation, and transcript services; and veterans benefits assistance.

In the Maryland/Virginia/national capital area, services are available at the following locations. A complete list of stateside class and service locations is available online at umgc.edu/locations.

Service Locations

Aberdeen Proving Ground

baseadvisor@umgc.edu
410-272-8269

Anacostia-Bolling (Joint Base Anacostia-Bolling)

baseadvisor@umgc.edu
202-563-3611

Andrews (Joint Base Andrews)

baseadvisor@umgc.edu
301-981-3123

Arundel Mills

regional.advisor@umgc.edu
888-335-8682

Bethesda (Walter Reed National Military Medical Center)

baseadvisor@umgc.edu
301-654-1377 or 301-530-5101

Dorsey Station

regional.advisor@umgc.edu
888-335-8682

Fort Belvoir

baseadvisor@umgc.edu
703-781-0059

Fort Detrick

baseadvisor@umgc.edu
301-619-2854 or 301 887-7776

Fort Meade

baseadvisor@umgc.edu
301-621-9882

La Plata

regional.advisor@umgc.edu
888-335-8682

Langley (Joint Base Langley-Eustis)

baseadvisor@umgc.edu
240-684-2878 or 240-684-2879

Largo (UMGC Academic Center)

regional.advisor@umgc.edu
888-335-8682

Laurel College Center

regional.advisor@umgc.edu
866-228-6110

Little Creek–Fort Story (Joint Expeditionary Base Little Creek–Fort Story)

baseadvisor@umgc.edu
757-275-9293

Myer-Henderson Hall (Joint Base Myer-Henderson Hall)

baseadvisor@umgc.edu
703-527-4952 (Fort Myer)
703-693-8049 (Henderson Hall)

National Security Agency (NSA)

baseadvisor@umgc.edu
202-738-3845 (Air Force)
301-852-1978 (Navy)

Norfolk Naval Station

baseadvisor@umgc.edu
301-985-7530

Quantico (Marine Corps Base Quantico)

baseadvisor@umgc.edu
703-630-1543

Shady Grove

regional.advisor@umgc.edu
888-335-8682

SERVICES AND RESOURCES

Southern Maryland Higher Education Center

regional.advisor@umgc.edu
888-335-8682

USM at Hagerstown

regional.advisor@umgc.edu
888-335-8682

MyUMGC

You may access many of your personal UMGC records online through MyUMGC (available online at my.umgc.edu). MyUMGC enables you to change personal information (such as home address, email address, or phone numbers); register and pay for courses; pay bills; check grades, financial aid, and student account status; apply for graduation; request certification for VA educational benefits and check the status of the request; and view and print reports (such as your class schedule, grade report, statement of account, and unofficial transcript). To access these services, you must enter your UMGC login credentials.

A glossary of terms frequently used in MyUMGC may be found in the appendices.

Accessibility Services

Reasonable accommodations are available to help you if you have a documented disability and are enrolled in any program offered at UMGC.

You can request disability-related accommodations by submitting a request to Accessibility Services.

You should make your request for accommodations as early as possible to allow sufficient time for the processing of your request and development of your accommodation plan. Once the request is received and accompanying documentation has been reviewed, Accessibility Services will notify you of the status of your request and schedule an intake appointment, which may be held by phone, via email, or in person. During the appointment, your request for accommodations, your academic needs, and Accessibility Services' procedures are discussed. Decisions regarding accommodations are made on an individualized assessment of program requirements and the need for accommodations. Once an accommodation plan is finalized, Accessibility Services will provide the plan to your teachers upon your written request.

Visit umgc.edu/accessibility or contact Accessibility Services by phone at 800-888-8682, ext. 2-2287, or 240-684-2277 (TTY) or by email at accessibilityservices@umgc.edu for more information.

Admission Assistance

If you are inquiring about becoming a UMGC student or are admitted but have not yet registered, admissions representatives can help you select the right program, apply for admission, identify the right payment option, plan your curriculum, and register for your first term of classes.

Contact an admissions counselor by phone at 800-888-8682 or by email at studentsfirst@umgc.edu. See p. 6 for information on admission.

Advising

Academic advisors provide the information you need to plan your academic program—from admission to degree completion. Their assistance can include reviewing potential transfer credit, helping you clarify education and career goals, and helping you select appropriate courses. Advising services are available by phone or email at times that are convenient to you. If you are near one of UMGC's sites in the Maryland/national capital region, you may schedule an advising appointment by contacting your local site.

Advisors will check in with you throughout the term, but you are also encouraged to keep track of your program requirements and seek advising. You should retain and refer to the catalog of the year you entered your program, as it contains all the degree requirements for which you will be held accountable as long as you maintain continuous enrollment. Archived catalogs are also available online at umgc.edu/catalogs.

If you have not attended UMGC for a year or more, call an advisor at 800-888-8682 or email studentsfirst@umgc.edu for assistance in getting back on track. If it has been more than two years since your last enrollment, you must first reapply for admission. Once readmitted, you are required to fulfill the degree requirements detailed in the catalog of the year in which you resume study. More information on continuous enrollment is provided on the introductory pages describing each type of degree and certificates.

Whenever possible, you should get advising information in writing to help with future degree planning. You must meet all degree requirements to be cleared for graduation.

SERVICES AND RESOURCES

Academic Advisement Report

An academic advisement report

- Includes all transfer credits applicable to the degree program
- Lists all courses you completed at UMGC
- Incorporates other types of academic credit
- Remains in effect only while you remain continuously enrolled

In the academic advisement report, courses are applied to the most appropriate requirement remaining to be filled. Undergraduate courses that could apply to multiple requirements are assigned to the first relevant category in the following order: requirements for your academic major, general education requirements, requirements for your academic minor (if you have one), and electives. Verification of other degree-wide requirements (such as minimum number of upper-level credits) follows and may affect the remaining credits needed for the degree.

Transfer Credit

To access information about progress in your chosen program, you need to submit official transcripts from all the colleges and universities you previously attended, including other institutions of the University System of Maryland, and any other potential source of credit, whether or not transfer credit will be requested or granted. UMGC may deny transfer credit from any institution not listed on the application for admission. Sources of transfer credit (described on pp. 14–16) not listed at the time of admission or approved by an advisor after admission may not be applied toward the UMGC program.

You are responsible for submitting all pertinent academic documents (such as academic transcripts, confirmation of credit conferred by examination, or records of credit from military service schools or sources) in a timely fashion to facilitate completion of your academic advisement report. To be considered official, documents must be sent directly from the issuer in either a sealed, unopened envelope or via an accepted secure electronic method. UMGC cannot accept official transcripts via fax or email, regardless of the source. For more information, visit umgc.edu/transcripts.

Official documents should be mailed to the appropriate address, depending on carrier.

Via U.S. Postal Service

Attn: Student Records
University of Maryland Global Campus
3501 University Boulevard East
Adelphi, MD 20783-8070

Via UPS, FedEx, or Other Parcel Service

Attn: Student Records
University of Maryland Global Campus
1616 McCormick Drive
Room 2400
Largo, MD 20774

Military Degree Plans

If you are a servicemember in the Army pursuing a certificate, associate, bachelor's, or graduate degree, UMGC will submit a student agreement or military degree plan to GoArmyEd.

If you are a Navy, Marine Corps, or Coast Guard student pursuing an associate or bachelor's degree, UMGC will provide a military degree plan that documents any credit you have been awarded from other sources. The military degree plan also lists all your remaining degree requirements, including the total number of credits needed for graduation, as well as credits required to fulfill general education, major and minor, and elective requirements.

If you are a Coast Guard, Navy, or Marine Corps servicemember pursuing a certificate or graduate degree, you do not require a military degree plan to continue to be eligible for tuition assistance. The Academic Advisement Report is sufficient documentation for that purpose.

If you are an Air Force servicemember pursuing a certificate or an undergraduate (associate or bachelor's) degree, UMGC will provide a specialized military degree plan (titled an Air Force Degree Plan).

Alumni Association

The UMGC Alumni Association, founded in 1990, fosters and perpetuates lifelong relationships between alumni and their alma mater. Its mission is to support, enhance, and promote UMGC and its community of students, faculty, and alumni worldwide.

Membership in the Alumni Association is free for UMGC graduates. The association invites graduates to stay connected through volunteer service, social events, career networking, and other opportunities. Benefit programs and resources include career services, networking opportunities, affinity partner discounts, virtual alumni book club, and special alumni events—held both online and on-site.

Membership in the UMGC Alumni Association offers an exceptional opportunity to expand personal and professional networks. UMGC currently has more than 246,000 graduates in 47 states and 24 countries. UMGC alumni work in nearly all major international and Fortune 500 organizations, federal agencies, branches of the military, and private industry.

SERVICES AND RESOURCES

For more information on the Alumni Association and on how to activate your free membership, visit alumni.umgc.edu. You can also follow the Alumni Association on Facebook, LinkedIn, and Twitter.

Career Services

Career Services provides resources and services for UMGC students and alumni worldwide to inform them about, prepare them for, and connect them with their career and job-search needs. To access Career Services, activate your account on CareerQuest, UMGC's online career portal, at careerquest.umgc.edu using your UMGC login credentials.

Tools and Resources

Career Services offers a variety of tools and resources, available online 24 hours a day, that can be useful in the career planning and job-search process. Resources include résumé builders and critiques, online mock interviews, video job-search tips, LinkedIn profile critiques, mentor matching, and occupational information.

Job-Search Services

UMGC offers several services designed to fulfill the employment needs of UMGC students and alumni, including employer recruitment sessions and job fairs (held online and on-site); employability and job-seeking skills webinars, such as résumé writing and interview preparation; and job-search tutorials. CareerQuest enables you to register for recruiting events, search job listings and set job alerts, and post résumés for prospective employers.

Career Development and Planning

Career Services staff are available to provide personalized attention to help you clarify your skills, interests, and work-related values; make career/life-related decisions; research career options; plan for further study; and search for employment, whether you are new to your career field, making a career transition, or looking for guidance on how to climb the corporate ladder as an experienced professional.

Career advising services are available by appointment (on-site and by phone, video chat, and email) and can be scheduled via CareerQuest. Call 800-888-8682, ext. 2-2720, or visit umgc.edu/careerservices for more information.

Computer Labs and Services

Computer labs are available at many UMGC sites (including Dorsey Station, Largo, and Shady Grove). You can check umgc.edu/locations to see if a site near you has computing services. At some sites, use may be restricted to students taking classes at that site.

These labs are available primarily for you to complete coursework but are also open to faculty members, staff, and alumni with current single sign-on credentials on a first-come, first-served basis on presentation of a valid UMGC ID. You must bring your own media to save required data or documents. Acceptable media include flash drives or thumb drives.

Lab assistants are available during scheduled hours to help you with resident software programs but cannot provide tutoring.

Technical support for MyUMGC, the learning management system, and other learning applications is available 24 hours a day, seven days a week, at umgc.edu/help or 888-360-8682. For the most current information on technical requirements for online and hybrid courses, visit umgc.edu/techreq.

Course Materials

You can complete most UMGC degrees without purchasing textbooks, thanks to electronic resources that are free, up to date, and available in your online classroom. These open educational resources may include electronic textbooks, lectures, links to websites, and other selected documents and media.

Some courses do require the use of specific software or content that cannot be accessed for free. When you register for a course, check the required course materials listed in the interactive schedule of classes to determine whether you will need to buy any course materials. These materials are not included on your student account or added with your tuition and fees and must be paid for out-of-pocket.

For those few courses that require additional resources, you may order textbooks and software either through the vendor listed on the interactive schedule, from MBS Direct online through the UMGC online bookstore (umgc.edu/bookstore), or by mail. In rare cases, your faculty member will provide information on special resources to purchase.

SERVICES AND RESOURCES

Graduation Clearance and Services

Application Deadlines

If you expect to complete the requirements for your program, you are responsible for making sure you have reviewed your academic advisement report with an academic advisor (details on p. 306), filed an application for graduation (available online through MyUMGC at my.umgc.edu) with Graduation Services, and paid the appropriate fee (currently \$50). For all undergraduate programs and most graduate programs, this may be done at the time you register for your final term or by the following deadlines:

December (fall term) graduation	October 15
May (spring term) graduation	February 15
August (summer term) graduation	June 15

If you are a doctoral student or are enrolled in a program that requires CBR 600, DCL 600, or PRO 600, you may submit your application for graduation at the time you register for your final term or up to the following deadlines:

December graduation	October 15
March graduation	February 15
June graduation	April 1
September graduation	July 15

The same deadlines apply if you are completing a certificate program. The application form must be completed via MyUMGC at my.umgc.edu. Follow the links from the Student Center, to MyAcademics, and Apply for Graduation.

Clearance Process for Graduation

Once you have applied for graduation, Graduation Services will review your academic requirements and determine whether you are cleared for graduation. If you do not complete the degree requirements in the term in which you first applied for graduation, your graduation application will automatically be moved to the next term. You will not be required to reapply, and you do not need to pay the application fee again.

If you are taking courses outside of UMGC in your final term, contact your academic advisor to request a Permission to Enroll form. Once the form has been completed and submitted, it will be reviewed by a member of the Graduation Services team. The Graduation Services team then certifies degree completion, awards the degrees or certificates, and orders diploma(s). Graduation Services also processes letters of completion and embassy letters.

Transcripts are not updated to show program completion, nor are diplomas and certificates ordered, until the degree has been awarded.

For more information on the clearance process for graduation, visit umgc.edu/graduationservices.

Commencement

Stateside commencement is held annually in May and December in Adelphi, Maryland. You will be invited to participate in commencement if you apply for a diploma in the same term as the ceremony (or have graduated since the last commencement). Visit umgc.edu/commencement for more information about eligibility and details about the stateside commencements.

If you invite guests from outside the United States, you may request up to 10 embassy letters up to five months in advance.

Student Advisory Council

The Student Advisory Council provides advice to the university administration and thus serves as an avenue for you and your fellow students to provide feedback about UMGC's mission and overall direction. The council consists of 12 members, elected by the student body, who act in an advisory capacity to the university leadership on behalf of all students. The council does not have the authority to act on behalf of individual students but instead provides recommendations for the improvement of UMGC for the benefit of all.

If you would like to see certain issues addressed or have questions, you should contact your council representative by email at stac@umgc.edu.

More information on shared governance is available online at umgc.edu/governance.

Student Organizations

Student organizations offer you the opportunity to network with other students with similar interests, ask questions to faculty, engage in your field of interest, and discuss related topics in an online forum. Visit umgc.edu/clubs for a list of active student organizations and instructions on becoming a member.

SERVICES AND RESOURCES

Transcript Services

Official academic records are maintained by the Office of the Registrar at UMGC and show all graded coursework taken through UMGC. A summary of your transfer credit from other institutions (including other institutions in the University System of Maryland) is also listed on your official transcript, if an official evaluation has been completed.

Your records are considered confidential. Therefore, UMGC releases transcripts only upon receiving an online transcript request from you and payment of the appropriate fee. Online requests are authenticated through your login credentials. An electronic release form is provided during the request process and serves as your official signature.

Various procedures for requesting transcripts are available online at umgc.edu/transcripts. A fee is charged for each UMGC transcript that is issued; additional fees are charged for rush overnight processing. You should allow at least three business days for transcript requests to be processed. All financial obligations to the university must be satisfied before a transcript may be released.

Tutoring and Writing Resources

Students at UMGC have access to free online tutoring in select courses in accounting, computer programming, economics, finance, and statistics via tutoring rooms. In these tutoring rooms, you can correspond with tutors, post questions and review answers, and take advantage of other resources designed to complement the materials in your course classroom.

You may also be able to schedule a synchronous session with a tutor for a specific course and session. Tutoring rooms are accessible via course classrooms, enabling you to take advantage of tutoring services more easily. More information about tutoring services is available at umgc.edu/tutoring. Information on tutoring resources for a given course is posted within the classroom.

You can also access writing-related services and resources through the Effective Writing Center, which is available online 24 hours a day, seven days a week. The center's experienced, trained tutors help you develop key writing skills by providing individual online tutoring, self-study modules, and other writing resources. You can submit assignments for review and schedule live online sessions. There are also a number of other resources hosted by the center, such as the "Online Guide to Writing and

Research" and various other multimedia resources. Writing is a constantly developing skill, so if you are returning to school after some time away, the Effective Writing Center can help. The center's goal is to help you become a more skilled and confident writer who understands the tasks before you, so that you are better prepared for your next assignment, whether that is in the classroom or in your career. More information is available at umgc.edu/ewc.

The UMGC Library

The UMGC Library serves to educate students, faculty, and staff in the use of library and information resources, emphasizing the critical importance of information literacy knowledge and skills for success in today's information-rich world. The UMGC Library also develops and manages extensive online library resources and user-centered services for UMGC students, faculty, and staff worldwide.

Library Resources

The UMGC Library provides access to a rich collection of research materials on a variety of topics (e.g., business, social science, science, arts and humanities, and computer and information systems). You can access an extensive array of subscription research databases containing tens of thousands of full-text articles, as well as thousands of electronic books, through the UMGC Library home page at umgc.edu/library or through the learning management system. The UMGC Library OneSearch allows you to search for scholarly articles, books, and other research resources from most of the databases to which the UMGC Library subscribes via a single search. The UMGC Library has also created subject-specific resource guides to serve as starting points for research. Each guide includes subject-relevant research databases, books, websites, and other relevant resources.

Library Services

Currently enrolled students in the continental United States have borrowing privileges at all the University System of Maryland and Affiliated Institutions (USMAI) member libraries. The library collections can be searched and books can be requested through the online library catalog, available via the library home page. All UMGC students may use the DocumentExpress service to request that journal articles or book chapters not available online in full text be sent to them electronically.

SERVICES AND RESOURCES

Library Instruction and Research Assistance

To help you gain the in-depth research skills you need to locate, evaluate, and use the rich research resources available to you, the UMGC Library offers library instruction, both in person and within the learning management system. Faculty members may contact the UMGC Library to request a library instruction session.

Reference and research assistance is available daily (except holidays), during regularly scheduled hours, through the UMGC Library web page under Ask a Librarian. For a complete list of library services, visit umgc.edu/library or call the UMGC Library at 240-684-2020 or 800-888-8682, ext. 2-2020, during regularly scheduled office hours.

Verification Services

Enrollment Verification

UMGC participates in the National Student Clearinghouse, which, in turn, supplies verification of enrollment to lending agencies. UMGC reports student enrollment data to the clearinghouse two times each month. Enrollment data are provided for all students who are enrolled in classes, whether they are attending full-time, half-time, or less than half-time, as well as for students who are considered to have withdrawn from the university. UMGC also reports degree information, including graduation date, for students who have completed an academic program.

If you are a current student, you may request enrollment verification through MyUMGC free of charge. If you are no longer enrolled at UMGC, you may request a transcript of your academic record to verify past enrollment.

All enrollment verifications requested via MyUMGC are processed in real time and available to print on the same day. An enrollment verification will not be processed until all financial obligations to the university have been satisfied.

Loan Deferment Form Certification

UMGC does not grant or deny deferment requests; any deferments are at the sole discretion of the lender. UMGC processes deferment forms, certifying your official dates of enrollment. If you are not enrolled in the current term, you are reported as having withdrawn, regardless of whether you plan to enroll or have already enrolled in a future term.

If you have a William D. Ford Federal Direct Loan and wish to apply for a deferment, you must complete the In-School Deferment Request (available at umgc.edu/finaidforms) and submit it to Academic Operations by mail for certification. Forms should be mailed to UMGC, Student Records—Outgoing Transcripts, 3501 University Boulevard East, Adelphi, MD 20783.

You should be aware both of your lender's deadlines for receiving deferment requests and UMGC's reporting schedule to avoid having deferment forms processed and forwarded to the lenders before enrollment data have been reported.

Degree Verification

UMGC has authorized the National Student Clearinghouse to provide degree verification. A degree verification will not be released until all financial obligations to the university have been satisfied.

Employers and background screening firms must contact the clearinghouse directly for this information, for which a fee is charged. For more information about this service, visit studentclearinghouse.org.

Veterans Resources

UMGC offers dedicated military and veterans advisors and a range of resources targeted specifically for veterans. These include VetSuccess on Campus and the Vessey Veterans Resource Center, a one-stop shop designed to give you the support you need to succeed in school and in your career. Learn more at umgc.edu/vetresources.

See p. 301 for information on using veterans benefits to pay for your education.

LEADERSHIP

University System of Maryland

Board of Regents (2019–2020)

Linda R. Gooden, *Chair*
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Joann Boughman, *Senior Vice Chancellor for Academic
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Ellen Herbst, *Vice Chancellor for Administration and Finance*
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Tim McDonough, *Vice Chancellor for Communications
and Marketing*
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Peter Goodwin, *Vice Chancellor for Environmental Sustainability*
Patrick N. Hogan, *Vice Chancellor for Government Relations*
David Mosca, *Director of Internal Audit*

UMGC

The President’s Cabinet

Javier Miyares, *President*
Ed Bach, *Vice President, Strategic Partnerships*
Bryan Booth, *Vice President and Dean, School of Business*
Tony Cho, *Vice President and Director, UMGC Europe*
Brian Christie, *Vice President, Enrollment Management*
James Cronin, *Vice President and Director, UMGC Asia*
Heather Date, *Vice President, Communications and Engagement*
Christopher M. Davis, *Vice President, Academic Quality*
Michael Freedman, *Senior Vice President and Journalist in Residence*
JulieAnn Garcia, *Vice President, Human Resources*
Martina Hansen, *Vice President, Student Affairs*
Douglas Harrison, *Vice President and Dean, School of Cybersecurity
and Information Technology*
Blair H. Hayes, *Ombudsman, Vice President, and
Chief Diversity Officer*
Lisa Henkel, *Vice President, Strategic Projects and Compliance*
Jamie Jaynes, *Vice President, Admissions and Field Operations*
Lisa Kemp, *Senior Vice President, Administration and Finance,
and Chief Financial Officer*
Eugene D. Lockett Jr., *Vice President, Financial Operations
and Facilities Management*
Gerard Maguire, *Vice President, Budget and Financial Planning
and Analysis*
Kristophyre McCall, *Vice President, Academic Operations,
and Acting Registrar*
Lloyd (Milo) Miles, *Senior Vice President, Global Military Operations*
Erika Orris, *Senior Vice President and Chief Enrollment
and Marketing Officer*
Blakeley Pomietto, *Senior Vice President and
Chief Academic Officer*
Frank J. Principe Jr., *Chief of Staff*
Louis C. Pugliese, *Executive Vice President*
Amin Qazi, *Senior Vice President and Chief Digital Officer*
Sherri Sampson, *Vice President and General Counsel*
Cathy Sweet, *Vice President, Institutional Advancement*
Kara Van Dam, *Vice President and Dean, School of Arts and Sciences
and Overseas Academic Affairs*
Kelly Wilmeth, *Vice President, Stateside Military Operations*

LEADERSHIP

Academic Affairs

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Bryan Booth, *Vice President and Dean, School of Business*

Douglas Harrison, *Vice President and Dean, School of Cybersecurity and Information Technology*

Kara Van Dam, *Vice President and Dean, School of Arts and Sciences and Overseas Academic Affairs*

Christopher M. Davis, *Vice President, Academic Quality*

Martina Hansen, *Vice President, Student Affairs*

Krystophyre McCall, *Vice President, Academic Operations, and Acting Registrar*

Note: School personnel now administer programs in their academic subject area at both the undergraduate and graduate levels. Some positions were vacant at time of publication.

School of Arts and Sciences

Office of the Dean

Kara Van Dam, *Vice President and Dean*

Randall Hansen, *Associate Dean*

Brogan Hetrick, *Senior Director, Academic Initiatives*

Liz Enriquez, *Manager, School Administration*

Department of Arts and Humanities

MaryBeth Matthews, *Department Chair*

Tracy Chung, *Program Director, English*

Damon Freeman, *Program Director, History*

Steve Killings, *Program Director, Humanities and Philosophy*

Hyomi Kim, *Program Director, World Languages and Cultures*

Mitchell Marovitz, *Program Director, Communications, Journalism, and Speech*

Richard Vosseller, *Program Director, Art and Graphic Communications*

Jeanine Williams, *Program Director, Writing Across the Curriculum*

Department of Education and Public Service

Alison Goodrich, *Department Chair*

Patrick Bradley, *Program Director, Legal Studies*

Reynaldo Garcia, *Program Director, Community College Policy and Administration*

Datta Kaur Khalsa, *Director of Assessment, Education Programs*

Kristin Kubik, *Director, MAT Student Support*

Brian Powers, *Program Director, Homeland Security, Intelligence, and Emergency Management*

Brandie Shatto, *Program Director, Educational Technology*

Department of Sciences

James Coker, *Department Chair*

John Beyers, *Program Director, Mathematics and Statistics*

Shannon Felice, *Internship and Clinical Placement Coordinator, Sciences*

Sabrina Fu, *Program Director, Environmental Science and Management*

Katherine Im, *Program Director, Behavioral Science and Gerontology*

Mary Frances Lebamoff, *Program Director, Political Science*

Debra McLaughlin, *Program Director, Natural Sciences*

Mary Schroeder, *Program Director, Nursing*

Robin Searles-Adenegan, *Program Director, Biological Sciences*

Roza Selimyan, *Program Director, Biotechnology*

Jennifer Thompson, *Program Director, Psychology*

School of Business

Office of the Dean

Bryan Booth, *Vice President and Dean*

Anna Seferian, *Associate Dean*

Ryan Kienstra, *Senior Director, Academic Initiatives*

Gia'Donna Nichols-Holmes, *Manager, School Administration*

Department of Accounting and Finance

Peter Munger, *Department Chair*

Kathleen Sindell, *Program Director, Finance and Economics*

Kathleen Sobieralski, *Program Director, Accounting*

LEADERSHIP

Department of Business Administration

Ravi Mittal, *Department Chair*

Kimberly Holiday-Udeh, *Program Director, Undergraduate Business Administration*

Department of Business Management

Rudy Watson, *Department Chair*

Elizabeth Brunn, *Program Director, Management Foundations and Nonprofit and Association Management*

Elena Gortcheva, *Program Director, Data Analytics*

Sandeep Patnaik, *Program Director, Marketing*

Freda Powell-Bell, *Program Director, Human Resources*

Liliya Roberts, *Program Director, Global Health Services and Administration*

Harriet Smith, *Program Director, Transformational Leadership and Project Management*

School of Cybersecurity and Information Technology

Office of the Dean

Douglas Harrison, *Vice President and Dean*

S. K. Bhaskar, *Associate Dean*

Chad Whistle, *Senior Director, Academic Initiatives*

Elexis DeGale, *Manager, School Administration*

Department of Cybersecurity

S. K. Bhaskar, *Interim Department Chair*

Patrick Appiah-Kubi, *Program Director, Cloud Computing Architecture*

John Galliano, *Program Director, Computer Networking and Cybersecurity Technology*

Valorie King, *Program Director, Cybersecurity Management and Policy and Information Assurance*

Patrick O'Guinn, *Program Director, Digital Forensics and Cyber Investigation*

Loyce Pailen, *Senior Director, Center for Security Studies*

James Robertson, *Program Director, Software Development and Security and Cyber Operations*

Department of Information Technology

Daniel Mintz, *Department Chair*

Michael Brown, *Program Director, Computer Science*

Barry Douglass, *Program Director, Information Systems Management*

David Johnson, *Program Director, Digital Media and Web Technology*

Leslie Pang, *Program Director, Information Technology Core, Systems and Services, and Systems Engineering*

Faculty

The university has a large and distinguished faculty. UMGC faculty consistently win awards, publish scholarly works, and contribute to the intellectual understanding of their fields. They are well respected by both practitioner and academic peers. In keeping with UMGC's mission, UMGC faculty are as nontraditional as their students, bringing practical as well as academic experience in their fields of expertise. Because of this, they are uniquely qualified to teach and guide students toward a richer and more robust understanding of how their academic learning translates into practice.

The full list of faculty members, with their academic credentials, is available online at umgc.edu/facultylist.

GLOBAL HEADQUARTERS

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UMGC Stateside

Adelphi Headquarters

Address

University of Maryland Global Campus
3501 University Boulevard East
Adelphi, MD 20783-8085

Telephone

800-888-8682

Fax

301-985-7977

Email

studentsfirst@umgc.edu

Web

umgc.edu

UMGC Europe

Europe Headquarters

Address

**From overseas U.S. military installations or
from the United States**

University of Maryland Global Campus Europe
Unit 29216
APO AE 09004

International (civilian from outside the United States)

University of Maryland Global Campus Europe
Hertelsbrunnenring 10
67657 Kaiserslautern
Germany

Telephone

Within Germany
0631-534-800

Outside Germany
+49-631-534-800

Fax

Within Germany
0631-534-80351

Outside Germany
+49-631-534-80351

Email

studentservices-europe@umgc.edu

Web

europe.umgc.edu

Catalogs

Requests for undergraduate and graduate catalogs for UMGCEurope should be sent to University of Maryland Global Campus, Unit 29216, APO AE 09004. Catalogs may also be obtained from University of Maryland Global Campus, 3501 University Boulevard East, Adelphi, MD 20783-8067. Catalogs are also available online at europe.umgc.edu/catalogs.

UMGC Asia

Asia Headquarters

Address

**From overseas U.S. military installations or
from the United States**

University of Maryland Global Campus Asia
Unit 5060, Box 0100
APO AP 96328-0100

International (civilian from outside the United States)

University of Maryland Global Campus
Building 445, Yokota Air Base
Fussa, Fussa-shi
Tokyo (197-0001) Japan

Telephone

Military

Within Asia
DSN: 225-3680

Outside Asia
DSN: 315-225-3680

Civilian

+81-42-552-2510, ext. 5-3680

Email

studentservices-asia@umgc.edu

Web

asia.umgc.edu

GLOBAL HEADQUARTERS

Japan Office

Address

From overseas U.S. military installations or from the United States

University of Maryland Global Campus
Attn: Japan Area Office
Unit 5060, Box 0100
APO AP 96328-0100

International (civilian from outside the United States)

University of Maryland Global Campus
Attn: Japan Area Office
Building 316, Yokota Air Base
Fussa, Fussa-shi
Tokyo (197-0001) Japan

Telephone

Military

Within Asia
DSN: 241-4217

Outside Asia
DSN: 315-241-4217

Civilian

+81-46-896-4217

Email

japan-asia@umgc.edu

Korea Office

Address

From overseas U.S. military installations or from the United States

University of Maryland Global Campus
Camp Humphreys Education Center
Unit 15592
APO AP 96271-5592

International (civilian from outside the United States)

UMGC Asia
USAG Camp Humphreys
Bldg. 657, Rm. 208
Gyeonggi-do, Pyeongtaek-si
Korea 17798

Telephone

Military

Within Asia
DSN: 755-3530

Outside Asia
DSN: 315-755-3530

Civilian

+82-503-355-3601

Email

humphreys-asia@umgc.edu

Okinawa Office

From overseas U.S. military installations or from the United States

University of Maryland Global Campus
718th FSS/FSDE
Unit 5134, Box 40
APO AP 96368-5134

International (civilian from outside the United States)

University of Maryland Global Campus
Education Center
Kadena Air Base
Building 59, Room 223
Kadena-cho
Okinawa-ken (904-0204) Japan

Telephone

Military

Within Asia
DSN: 634-2206

Outside Asia
DSN: 315-634-2206

Civilian

+81-6117-34-2206

Email

kadena-asia@umgc.edu

GLOBAL HEADQUARTERS

Guam Office

Address

**From overseas U.S. military installations or
from the United States**

University of Maryland Global Campus Asia
36 FSDE
Unit 14064
APO AP 96543

Telephone

Military

Within Asia
DSN: 366-7132/7136/1425

Outside Asia
DSN: 315-366-7132/7136/1425

Civilian

1-671-366-7132

Email

anderson-asia@umgc.edu

Catalogs

Catalogs may be obtained by writing to UMGC Asia, Unit 5060, Box 0100, APO AP 96328-0100 or to University of Maryland Global Campus, 3501 University Boulevard East, Adelphi, MD 20783-8067. The catalog is also available online at asia.umgc.edu.

POLICIES

The information contained in this catalog reflects the policies of both UMGC and the University System of Maryland (USM). The complete list and text of UMGC's policies can be found at umgc.edu/policies. USM policies can be found at usmd.edu/regents/bylaws.

Annual Security Report and Consumer Disclosures

In accordance with U.S. Department of Education regulations, University of Maryland Global Campus distributes an Annual Safety and Security Report to all current students, staff, and faculty. It is also available to prospective students, staff, and faculty, upon request.

The annual report provides important information about rights and responsibilities on the following topics:

- Campus safety and security policies and services
- Sexual misconduct policy
- Emergency procedures
- Notification of rights under FERPA for postsecondary institutions
- Peer-to-peer file sharing
- Drug prevention program
- Clery Act crime statistics by location for the previous three calendar years

You can read the Annual Safety and Security Report at umgc.edu/inform. If you have questions or wish to receive a copy of the current annual report, contact the UMGC director of security at 301-985-7471.

To help you stay informed, additional consumer disclosures can be found at umgc.edu/disclosures.

Disclosure of Student Records

UMGC complies with the Family Educational Rights and Privacy Act (FERPA), a federal law that protects the privacy of students' education records. In accordance with FERPA, you have the right to inspect and review your education records; seek an amendment of your education records, where appropriate; limit disclosure to third parties of directory information (student information that

may be released without your prior written consent); and file formal complaints alleging a violation of FERPA with the Department of Education Family Policy Compliance Office. In addition, FERPA provides that most of your student information may not be released to third parties without your prior consent.

UMGC's Policy 210.14 Disclosure of Student Records contains an explanation of information that may be disclosed with and without prior consent, as well as procedures for requesting amendments to records, requests for nondisclosure, and filing of complaints. Requests for inspection of your student records may be sent to UMGC Academic Operations at studentrecords@umgc.edu. For another person to act on your behalf, a power of attorney is required. More information on FERPA, including disclosures to third parties, can be found at umgc.edu/current-students/finances/financial-aid/financial-aid-policies/ferpa.cfm.

Nondiscrimination

UMGC is committed to ensuring that all individuals have equal access to programs, facilities, admission, and employment and that no person shall be excluded from participation in, be denied the benefit of, or otherwise be subjected to unlawful discrimination in this institution's programs and activities. In accordance with federal, state, and local laws and regulations, UMGC does not discriminate against any person on the basis of race, religion, color, creed, sex, gender, gender identity or expression, marital status, sexual orientation, age, national origin, ancestry, political affiliation, mental or physical disability, genetic information, veteran status (including Vietnam-Era veterans), or any other legally protected characteristic. Specifically, under Title IX of the Education Amendments of 1972, UMGC prohibits discrimination on the basis of sex in its programs and activities. UMGC will take steps to eliminate prohibited conduct, prevent its recurrence, and remedy its effects.

All inquiries regarding UMGC's Nondiscrimination Statement or compliance with applicable statutes and regulations regarding equal opportunity should be directed to the fair practices and equal opportunity officer, Office of Diversity and Equity, 3501 University Boulevard East, Adelphi, MD 20783-8000 (phone 301-985-7940 or email fairpractices@umgc.edu).

For UMGC Policy 040.30 Affirmative Action and Equal Opportunity, see umgc.edu/policies/adminpolicies/admin04030.cfm.

Inquiries regarding Title IX/sexual misconduct may be directed to the Title IX coordinator, Office of Diversity and Equity, 3501 University Boulevard East, Adelphi, MD 20783-8000 (phone 301-985-7021 or email titleixcoordinator@umgc.edu) or a member of UMGC's Title IX Compliance Team.

POLICIES

See umgc.edu/diversity/title-ix-sexual-misconduct/index.cfm.
For UMGC Policy 041.00 Sexual Misconduct, see umgc.edu/policies/adminpolicies/admin04100.cfm.

For external inquiries regarding the notice of nondiscrimination, including Title IX information, contact the Office for Civil Rights, U.S. Department of Education, Wanamaker Building, Suite 515, 100 Penn Square East, Philadelphia, PA 19107, or call 800-421-3481.

Peer-to-Peer File Sharing

Unauthorized use of copyrighted materials may bring civil and criminal penalties to the user. UMGC is committed to combating the unauthorized use of copyrighted materials on UMGC's network (including the online classroom) and therefore has established a written plan to achieve this goal. The intent of this plan is to inform UMGC students, faculty, and staff members of the appropriate use of copyrighted material on the network and to deter, detect, and discipline prohibited use, while reasonably maintaining the educational use of UMGC's network. More information on UMGC's policy on intellectual property is available online at umgc.edu/intellectual-property.

Summary of Civil and Criminal Penalties for Violation of Federal Copyright Laws

Copyright infringement is the act of exercising, without permission or legal authority, one or more of the exclusive rights granted to the copyright owner under section 106 of the Copyright Act (Title 17 of the United States Code). These rights include the right to reproduce or distribute a copyrighted work. In the file-sharing context, downloading or uploading substantial parts of a copyrighted work without authority constitutes an infringement.

Penalties for copyright infringement include civil and criminal penalties. In general, anyone found liable for civil copyright infringement may be ordered to pay either actual damages or statutory damages affixed at not less than \$750 and not more than \$30,000 per work infringed. For willful infringement, a court may award up to \$150,000 per work infringed. A court can, at its discretion, also assess costs and attorneys' fees. For details, see Title 17, United States Code, Sections 504, 505.

Willful copyright infringement can also result in criminal penalties, including imprisonment of up to five years and fines of up to \$250,000 per offense.

More information is available on the U.S. Copyright Office website at copyright.gov.

UMGC Procedures for Handling Unauthorized Distribution

UMGC implements an active protocol to respond to copyright infringement allegations. In accordance with the Digital Millennium Copyright Act (DMCA), UMGC has designated the following individual to receive and respond to reports of alleged copyright infringement on UMGC's website:

Sherri Sampson

General Counsel
Office of Legal Affairs
University of Maryland Global Campus
3501 University Boulevard East
Adelphi, MD 20783
301-985-7080
legal-affairs@umgc.edu

To be effective under the DMCA, a notification of claimed infringement must be in writing and include the following information:

1. A physical or electronic signature of a person authorized to act on behalf of the owner of an exclusive right that is allegedly infringed;
2. Identification of the copyrighted work claimed to have been infringed, or, if multiple copyrighted works at a single online site are covered by a single notification, a representative list of such works at that site;
3. Identification of the material that is claimed to be infringing or to be the subject of infringing activity and that is to be removed or access to which is to be disabled, and information reasonably sufficient to permit the service provider to locate the material;
4. Information reasonably sufficient to permit the service provider to contact the complaining party, such as an address, telephone number, and, if available, an electronic mail address at which the complaining party may be contacted;
5. A statement that the complaining party has a good faith belief that use of the material in the manner complained of is not authorized by the copyright owner, its agent, or the law; and
6. A statement that the information in the notification is accurate, and under penalty of perjury, that the complaining party is authorized to act on behalf of the owner of an exclusive right that is allegedly infringed.

Once an effective DMCA takedown request is submitted, UMGC will act expeditiously to remove or block access to the infringing material.

POLICIES

Religious Observance

So that academic programs and services of UMGC 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. More information on UMGC Policy 051.00 Religious Observances may be found at umgc.edu/policies/academicpolicies/aa05100.cfm.

Sexual Misconduct

UMGC is committed to creating and maintaining an environment in which all persons who participate in university programs and activities, perform work, and provide services can learn and work together in an atmosphere free from sexual misconduct, a form of sex-based discrimination. UMGC provides training, education, prevention programs, and policies and procedures that promote prompt reporting; prohibit retaliation; and promote timely, fair, and impartial investigation and resolution of sexual misconduct cases.

Inquiries concerning the application of Title IX may be referred to the UMGC's Title IX coordinator or the U.S. Department of Education, Office for Civil Rights. If you have any questions regarding sexual misconduct or need to report a complaint, contact Steven Alfred, Title IX coordinator, by phone at 301-887-7295 (voice and text) or via email at titleixcoordinator@umgc.edu. For details on UMGC's sexual misconduct policy, see UMGC Policy 041.00 Sexual Misconduct at umgc.edu/policies/adminpolicies/admin04100.cfm and umgc.edu/diversity/title-ix-sexual-misconduct/index.cfm.

Smoking

In accordance with USM policy, UMGC seeks to promote a healthy, smoke-free environment for the UMGC community. More information on Policy 640.00 UMGC Policy on Smoking may be found at umgc.edu/policies/adminpolicies/admin64000.cfm.

Student Classification for Admission and Tuition

For information on student classification and residency, see USM Policy VIII-2.70 at usmd.edu/regents/bylaws/SectionVIII. Also see UMGC Policy 210.20 Student Residency Classification for Admission, Tuition, and Charge-Differential Purposes at umgc.edu/policies/fiscalpolicies/fisc21020.cfm.

Student Drug and Alcohol Awareness

UMGC complies with all federal, state, and local laws that regulate or prohibit the possession, use, or distribution of alcohol or illicit drugs. Violations of such laws that come to the attention of UMGC officials will be addressed through UMGC procedures, through prosecution in the courts, or both.

All UMGC students are prohibited by UMGC from unlawfully possessing, using, manufacturing, distributing, or dispensing alcohol or any controlled substance on UMGC premises or at UMGC-sponsored activities. UMGC expects all students to comply with applicable federal, state, and local laws and regulations pertaining to possession, use, manufacture, distribution, or dispensation of alcohol and/or controlled substances.

Any student who violates any of the applicable standards of conduct is subject to corrective disciplinary actions and penalties up to and including expulsion from UMGC academic programs and referral to the appropriate federal, state, and/or local authorities for prosecution in the courts. Students should see the drug prevention program section of the most current UMGC Annual Safety and Security Report (umgc.edu/inform) for additional information.

Transfer of General Education Requirements

UMGC conforms with the general education requirements as laid out by COMAR 13B.02.02.16D(2)(b)-(c) Maryland regulation. Up to 36 general education credits earned at another Maryland public institution will transfer to UMGC as general education credits. UMGC's general education requirements may be found on p. 7 of this catalog.

A student who has satisfactorily completed a course identified as a general education requirement at a Maryland community college will receive credit toward UMGC's general education requirements, as stated in Code of Maryland Regulations Title 13B, Subtitle 06, Chapters 1–10. For other students, courses are evaluated on a case-by-case basis. UMGC has included its evaluation of many Maryland community college courses in its section of the University System of Maryland's computerized articulation system (ARTSYS). This software is available at all two- and four-year Maryland public institutions and online at artsys.usmd.edu. Consult an advisor for details.

Community College Alliances

Maryland

Allegany College of Maryland
Anne Arundel Community College
Baltimore City Community College
Carroll Community College
Cecil College
Chesapeake College
College of Southern Maryland
Community College of Baltimore County
Frederick Community College
Garrett College
Hagerstown Community College
Harford Community College
Howard Community College
Montgomery College
Prince George's Community College
Wor-Wic Community College

A complete list of state alliances is available at umgc.edu/alliances.

CPA Requirements

UMGC's programs in accounting may help prepare you to sit for the Uniform Certified Public Accountant Exam and/or obtain initial licensure as a Certified Public Accountant (CPA) in Maryland. To sit for the CPA Exam in Maryland, a candidate is required to have successfully completed 120 credits toward an accounting degree. Many other states, however, require candidates to successfully complete 150 credits prior to sitting for the CPA Exam.

To obtain initial licensure as a CPA in Maryland and most other states, a candidate is required to have successfully completed 150 credits. UMGC graduate accounting programs help prepare you to become licensed as a CPA in Maryland.

If you intend to request transfer credits from a nonregionally accredited institution, a third-party provider or facility, or an institution located outside the United States, or you intend to request transfer of ACE-evaluated credit, be aware that doing so may impact your ability to become licensed as a CPA. For information regarding licensure in other states and transfer credit, visit umgc.edu/professional-licensure.

MyUMGC Terminology

The following is an explanation of terms students may encounter when using MyUMGC.

Academic Advisement Report (Degree Plan): A review of the academic progress that a student has made within his or her UMGC program.

Activation: The automated process of verifying a student's record for enrollment eligibility each term based on certain criteria. This process enables a student to register for courses.

Admission: The process of being admitted to the university, which includes completing an application and paying the fees required for entrance.

Campus: The UMGC division where a student is located. UMGC has three major campuses—UMGC Asia, UMGC Europe, and UMGC Stateside. Within those campuses are additional locations where classes are held or staff and academic advisors may be reached.

Career: Graduate or undergraduate level of study.

Class Number: The unique five-digit number assigned to each class at UMGC.

Drop: To cancel your enrollment in a class before the end of the drop period posted on the UMGC website for your division.

APPENDICES

eApp: An abbreviation for electronic application, which is an application to the university that is filled out and submitted online.

EmplID (or Student ID): A system-generated identification number for student use. Students should record their EmplID in a safe, secure place, as it will be needed to access various services. GoArmyEd students should note that their UMGC EmplID will be different from their GoArmyEd EmplID.

Enrollment Activity: The process of adding or dropping a class.

Lower-Level (LL) Courses: Courses that are numbered 100–299.

Official Evaluation (or Academic Advisement Report): A review of the academic progress that a student has made within his/her UMGC program.

Portal: A website that integrates online applications, such as email, databases, references to other websites, and proprietary applications, under one unique URL, often allowing secure access with one unique login and password.

Real-Time: This means that transactions are implemented at the moment a user makes them, regardless of time zone. There is no time delay; all information is current up to the moment users access it.

Semester: Also known as a term, divided into individual sessions.

Session: Usually an eight-week period within a term (number of weeks may vary), during which classes are offered.

Subject and Catalog Number: The four-letter abbreviation and three-digit number for UMGC classes. For example, in COMM 300, COMM stands for communication studies and 300 is the catalog number.

Term: A full semester, which may be subdivided into sessions. Student finance and financial aid offices use this time period for instructional accounting.

Third-Party Payment: A payment made by a third party, such as tuition assistance (TA), Army Emergency Relief (AER), and scholarships. (Note: Loans and federal grants are not third-party payments.)

Units: The credit value the university assigns to a course.

Upper-Level (UL) Courses: Courses that are numbered 300–499.

UserID: A student's user name for logging into MyUMGC. Students will need both their userID and password to log in.

Withdraw: To cancel your enrollment in a class after the end of the drop period posted on the UMGC website for your division.

Retention of Student Records

UMGC maintains records of students' admission, enrollment, grades, transfer of credits, transcripts, graduation, and degree(s) while the student is enrolled and permanently after graduation.

State Authorizations

As an online university, UMGC offers online courses and services throughout the United States. UMGC is also authorized to offer hybrid courses and/or provide on-site student support services, such as enrollment or academic advising, through approval or exemption by various state higher education regulatory authorities. For information regarding UMGC's current state authorizations, visit umgc.edu/stateauthorizations.

The following disclosures are required by certain state higher education regulatory authorities.

Virginia

The University System of Maryland and the Maryland Higher Education Commission have approved all programs offered by UMGC, including those programs offered at Virginia sites. Any credit earned for coursework at UMGC in Virginia shall be applied in the same manner as if the credit was earned online or at any other UMGC location. UMGC is certified to operate in Virginia by the State Council of Higher Education for Virginia.

The university offers courses and/or provides services at the following locations:

Fort Belvoir

Barden Education Center, Building 1017
9625 Belvoir Road
Room 128
Fort Belvoir, VA 22060

Fort Lee

700 Quarters Road
Room 159
Fort Lee, VA 23801

Joint Base Langley-Eustis

Education Center
450 Weyland Road
Hampton, VA 23655

APPENDICES

Joint Base Myer–Henderson Hall

Education Center, Building 417
239 Sheridan Avenue
Room 215
Fort Myer, VA 22211

Joint Expeditionary Base Little Creek–Fort Story

1481 D Street
Building 3016
Virginia Beach, VA 23459

Naval Station Norfolk

1680 Gilbert Street
Building IE
Norfolk, VA 23511

Thomas Nelson Community College

525 Butler Farm Road
Hampton 3 Building
Hampton, VA 23666

UMGC offers courses that are open for enrollment to GEICO employees only at the following locations:

GEICO

1 Geico Boulevard
Fredericksburg, VA 22412

GEICO

1345 Perimeter Parkway
Virginia Beach, VA 23454

Washington

UMGC is authorized by the Washington Student Achievement Council and meets the requirements and minimum educational standards established for degree-granting institutions under the Degree-Granting Institutions Act. This authorization is subject to periodic review and authorizes UMGC to offer specific degree programs. The Council may be contacted for a list of currently authorized programs. Authorization by the Council does not carry with it an endorsement by the Council of the institution or its programs. Any person desiring information about the requirements of the act or the applicability of those requirements to the institution may contact the Council at P.O. Box 43430, Olympia, WA 98504-3430 or by email at degreeauthorization@wsac.wa.gov.

The transferability of credits earned at UMGC is at the discretion of the receiving college, university, or other educational institution. Students considering transferring to any institution should not assume that credits earned in any program of study at UMGC will be accepted by the receiving institution. Similarly, the ability of a degree, certificate, diploma, or other academic credential earned at UMGC to satisfy an admission requirement of another institution is at the discretion of the receiving institution. Accreditation does not guarantee that credentials or credits earned at UMGC will be accepted by or transferred to another institution. To minimize the risk of having to repeat coursework, students should contact the receiving institution in advance for evaluation and determination of transferability of credits and/or acceptability of degrees, diplomas, or certificates earned.

APPENDICES

Stateside Classroom Locations with Zip Codes

The following locations offer either undergraduate or both undergraduate and graduate courses.

Name of Location	Zip Code
Aberdeen Proving Ground	21005
Academic Center at Largo.....	20774
Anne Arundel Community College at Arundel Mills.....	21076
Cecil College.....	21901
Dorsey Station.....	21075
Eglin Air Force Base.....	32542
Fort Belvoir	22060
Fort Benning.....	31905
Fort Bliss.....	79916
Fort Drum.....	13602
Fort Gordon	30905
Fort Hood.....	76544
Jacksonville Naval Air Station.....	32212
Joint Base Anacostia-Bolling	20032
Joint Base Andrews.....	20762
Joint Base Langley-Eustis	23665
Joint Base Lewis-McChord	98433
Joint Base Myer-Henderson Hall.....	22211

Joint Expeditionary Base Little Creek-Fort Story.....	23459
Killeen	76549
Laurel College Center.....	20707
La Plata.....	20646
National Security Agency	20755
Naval Station Mayport.....	32233
Naval Station Norfolk.....	23511
Odenton	21113
Pearl City.....	96782
Prince George's Community College	20774
San Diego	92108
Shady Grove	20850
Southern Maryland Higher Education Center.....	20619
Thomas Nelson Community College.....	23666
University of Maryland, College Park.....	20742
U.S. Coast Guard Base Honolulu	96819
USM at Hagerstown.....	21740
Walter Reed National Military Medical Center (Bethesda).....	20889

A complete list of stateside class and service locations and contact information is available online at umgc.edu/locations.

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