UMUC

University of Maryland University College

TAKE THE NEXT STEPS TO BUILDING YOUR FUTURE

CATALOG

THE UNDERGRADUATE SCHOOL | 2014–2015

www.umuc.edu/ugprograms

UMUC IN MARYLAND AND AROUND THE WORLD

At University of Maryland University College (UMUC), a high-quality education is always within reach. UMUC is dedicated to offering on-site and online courses and resources to adult students in Maryland and around the world. Under contract to the U.S. Department of Defense, UMUC is one of the largest providers of education to the U.S. military worldwide and serves 55,000 active-duty military servicemembers, reservists, veterans, and their families. With more than 125 worldwide locations in more than 20 countries and territories and nearly 100 undergraduate and graduate degree and certificate programs offered entirely online, UMUC makes it possible to earn a widely respected degree from just about anywhere.

UMUC's commitment to students around the globe extends far beyond providing access to excellent degree programs. An online academic and administrative services portal, MyUMUC, makes it simple for students to register for courses, pay tuition, and order textbooks and other supplies when it's convenient for them. Students can also access academic and career advising, financial aid counseling, library services, and much more online via the university's website or by phone or e-mail. All over the world, UMUC gives its students what they need to succeed.

This catalog provides the degree requirements and recommended curriculum for students who begin continuous study on or after August 1, 2014. (Details are listed on p. 7.) Students should keep their catalog available for easy reference throughout their degree program.

From the Dean

Welcome to The Undergraduate School at University of Maryland University College (UMUC). The Undergraduate School is committed to helping you learn and succeed in your academic journey and your professional career.

As you begin your journey with us this year, you will enjoy the advantages of our new learning environment—LEO. LEO has an interactive calendar, a tool to track your progress in courses, audio messaging, and other features to improve your ability to interact with your faculty members and with your classmates. In addition, course materials have been reviewed and updated for currency in each discipline. We continue to review programs, courses, and assignments so that all aspects of the curriculum are aligned and focused on workplace-relevant outcomes.

Use this catalog as your map to UMUC. Inside you will find degree descriptions, recommended course sequences, requirements, and information on services and locations. All of this information is also available on our website *(www.umuc.edu)* and through the university's information and service portal, MyUMUC *(https://my.umuc.edu).*

As the first to welcome you to UMUC, I wish you academic and professional success.

Sincerely,

Matthew Prineas, PhD
Acting Vice Provost and Dean
The Undergraduate School

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MAJORS are indicated in bold.

Welcome to UMUC

A UNIQUE INSTITUTION

University of Maryland University College (UMUC) is unique among institutions of higher education. From its founding in 1947, UMUC was designed to meet the educational needs of adult students—students who must balance study with the demands of work and family life.

Today UMUC has grown to be the largest public university in the nation, serving students throughout the state, the country, and the world. Yet its focus on providing open access to high-quality educational programs and services—eliminating the barriers that can keep students from achieving their educational goals—remains unchanged.

CARRYING OUT THE MISSION

Students First

At UMUC, student success is of paramount importance. The university seeks not only to help students fulfill their current education goals but also to create an educational partnership that will last throughout their lives.

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

As a global university, UMUC makes it possible for students to take classes any time, any place, by offering one of the largest selections of online programs available—in addition to classes at sites throughout Maryland and the metropolitan Washington, D.C., area and at military sites all over the world. Student services can also be accessed online and by phone, as well as on-site.

Convenience and flexibility are not the only concerns, however. UMUC seeks to create a learning environment that students will find respectful of their diverse backgrounds, inclusive, responsive, and relevant.

Recognizing that financial concerns are often the biggest obstacle to higher education, UMUC 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, UMUC is dedicated to providing the highest quality programs and services to its students and ensuring excellence in its online and on-site courses.

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

The success of UMUC's efforts is evident. Year after year, UMUC continues to garner awards from such notable organizations as the University Professional and Continuing Education Association, the Sloan Consortium, and the Maryland Distance Learning Association.

Innovation

UMUC has always looked for new and better ways to serve students. Long before the online revolution, UMUC was delivering courses to students at distant locations, using any and all available technologies—from interactive television to voice mail. Today, students access both courses and services online, using the university's learning management system and MyUMUC, its online gateway to services and information. UMUC's faculty also strive to find new ways to best use these technologies to assist their students' learning.

FACILITIES AND PROGRAMS

UMUC offers degree programs from the associate's level to the doctorate. Most undergraduate and graduate programs are available online. These academic programs are administered by The Undergraduate School and The Graduate School. UMUC also provides noncredit leadership development programs through its National Leadership Institute (NLI).

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 and Conference Center at UMUC. The Academic Center at Largo houses both The Undergraduate School and The Graduate School, as well as all related academic support units. Most classes and services, however, are provided at more than 125 sites worldwide, as well as through cutting-edge technology—online via the university's website, the learning management system, and MyUMUC.

FOR ASSISTANCE

Assistance is available by e-mail at *ugadvising@umuc.edu* or by phone at 800-888-UMUC (8682).

The Undergraduate School

The mission of The Undergraduate School at University of Maryland University College is to provide open access to quality undergraduate educational opportunities to women and men around the world, including residents of the state of Maryland, members of the U.S. Armed Services, and national and international students pursuing a university education on-site and online. The university seeks to produce graduates who are well prepared to be responsible citizens in a global society, as well as effective participants in the complex, fast-changing world of work.

The Undergraduate School is committed to meeting undergraduate students' needs for lifelong learning by providing innovative delivery of high-quality educational programs, ensuring substantive and relevant curricula, and recognizing the value of experiential learning. At the undergraduate level, UMUC offers the Associate of Arts (available only to active-duty military personnel and other special populations), the Bachelor of Arts, the Bachelor of Science, the Bachelor of Science in Nursing, and the Bachelor of Technical and Professional Studies degrees, as well as five undergraduate certificates. ✜

PREPARING CITIZENS FOR THE 21ST CENTURY

UMUC prepares graduates to be effective professionals and citizens in their organizations, communities, and families. The university values the contributions of both a broad-based education and specific disciplines to the undergraduate experience and thus incorporates cross-curricular context and analytical approaches in all programs to complement practice.

Instruction and curricula at UMUC are based on the belief that certain abilities are the hallmarks of successful learning. UMUC expects students to demonstrate knowledge and skills not only in the major areas of study but also in critical analysis, reasoning, and problem solving; diverse cultures and historical periods; the use of technology; key concepts and principles of the natural, social, and behavioral sciences; information literacy; effective writing and communication; mathematical and quantitative reasoning; and the application of frameworks for ethical decision making. These hallmarks of a UMUC undergraduate education are instilled through a broad foundation in general education and integrated into a strong and focused major area of study. Students' mastery of these abilities is planned and assessed throughout their program of study.

General education coursework can provide the lens through which students not only learn about different academic disciplines and how they see the world but also experience practical applications of foundational skills and concepts and make connections among different approaches and applications. UMUC's minimum requirements for general education coursework conform to state of Maryland requirements and are broadly accommodating of student interests and transfer credit. However, specific courses are recommended to fulfill general education requirements where students have not yet done so. Because technology affects our world and the ways in which we understand it at every level, The Undergraduate School has developed courses that revolve around the theme of technological transformations—the ability of innovative tools and processes to change the application of knowledge—for its recommendations. These courses are designed to help students acquire a grounding in the arts, humanities, and sciences by studying and applying the principles of these disciplines through concrete cases, examples, and topics centered around this theme.

For their core studies, students may choose one of 32 majors from a wide variety of academic fields, including business administration, cybersecurity, humanities, communication studies, biotechnology, social science, legal studies, environmental management, and information systems management. Academic minors are available in 46 different areas. All the majors and minors have been reviewed and revised in consultation with faculty, employers, professional and educational organizations, and other experts in the field. These academic programs prepare students for the modern workplace and also help working students put their current knowledge into a broader context.

Recognizing the importance of lifelong learning, UMUC also offers several undergraduate certificates✜ of value in the workplace for career advancement.

SERVING ADULT STUDENTS

UMUC welcomes all students and helps them achieve their educational goals but has a special focus on the needs of adult students in the workforce. In 2011, more than 70 percent of UMUC undergraduates worked full-time, and nearly half were working parents. Currently, the median age for stateside undergraduate students is 31 years old.

In recognition of the diverse educational goals and aspirations of its students, the university uses a variety of strategies to ensure access and facilitate degree completion. Knowing that adult students bring experience as well as a willingness to learn, UMUC acknowledges the value of that experience by incorporating the assessment of nontraditional learning in the evaluation of students. Since adult students may have gained college-level learning

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✜ *More information about certificates, including gainful employment disclosures, is available at* www.umuc.edu/ugcertificates.

from multiple sources, UMUC offers a number of innovative credit options that recognize the learning achieved through work and life experience and accelerate progress toward the degree. These options (described on pp. 213–15) include Workplace Learning, which offers credit for new learning in the workplace, and Prior Learning, which offers credit for college-level learning acquired through previous work or life experience. UMUC also accepts credit from community college coursework and a variety of other sources, including military service credit and credit by examination (described on pp. 215–18).

UMUC understands the demands of balancing work, family, and study and responds by offering undergraduate classes at convenient locations and times, including evenings and weekends. Courses are also provided in innovative formats, including accelerated sessions, online delivery, and hybrid courses that combine on-site and online delivery. The rapid growth in undergraduate enrollments at UMUC testifies to the convenience, flexibility, and substantive content of its academic offerings in all formats.

EDUCATIONAL RELATIONSHIPS

UMUC 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. For more than 65 years, UMUC has proudly served the U.S. military through its educational partnerships in Europe and Asia. The university also reaches out through educational collaborations around the world.

In support of the university's mission to extend access to educational opportunities to Maryland's adult students, UMUC has formed alliances with all

16 Maryland community colleges, enabling students to earn an associate's degree at an allied community college and finish a bachelor's degree by completing required coursework at UMUC. These alliances offer students a seamless transition between curricula through linked degree programs. Numerous locations in Maryland and the Washington, D.C., area and online courses enable students to complete associate's and bachelor's degrees conveniently close to home. Special UMUC scholarships are also available for graduates from Maryland community colleges.

UMUC 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.

The Undergraduate School works in partnership with The Graduate School to develop accelerated pathways for students who wish to earn their graduate degree at UMUC. Programs with articulated pathways include Accounting, Business Administration, Cybersecurity, Computer Science, English, History, Political Science, Social Science, Emergency Management, and Homeland Security. More information may be obtained from an academic advisor or the graduate catalog.

UMUC also works to develop strong strategic partnerships with local and national leaders in business and industry, government, and nonprofit organizations and is an important partner in the region's economic development.

UMUC values employers' viewpoints. Consistent with its mission of bringing convenient and relevant learning

opportunities to the workforce, UMUC has developed strong relationships with many prominent employers in the area and around the country, including the American Bankers Association, Booz Allen Hamilton, GEICO, and ManTech International.

UMUC has developed customized programs for employers and organizations across the country. The university has developed articulated programs with other educational institutions nationwide—including community colleges across the United States—and internationally, including Far East Federal University and Irkutsk State University in Russia.

UMUC has established alliance agreements with 90 community colleges across the United States, including all 16 Maryland community colleges (listed on p. 239), all of which are visited regularly by UMUC representatives. More information may be found online at *www.umuc.edu/alliances.*

FOR MORE INFORMATION

For more information about UMUC and the Undergraduate School, students should contact the university by phone at 800-888-UMUC or by e-mail at *ugadvising.edu.*

BACHELOR'S DEGREE REQUIREMENTS

At the undergraduate level, UMUC 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, as well as five certificates.✛ The Associate of Arts degree, the Bachelor of Science in General Studies, and several other certificates✛ are available only to active-duty military personnel and other special populations. The Bachelor of Science in Nursing program is available only to students with an active, unencumbered registered nurse license and an associate's degree in nursing from an approved community college. The Bachelor of Technical and Professional Studies degree programs are available only to students who have earned the Associate of Applied Science degree from a community college with which UMUC has an appropriate articulation agreement.

Except for those restricted programs, current UMUC degree programs are open to UMUC students anywhere in the world. However, offerings sufficient to complete every program may not be available at every location or in every format. Students should consult advisors, current schedules, and site-specific materials to determine which programs they may normally expect to complete from their geographic location.

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

EXPECTATIONS

The UMUC degree begins with basic intellectual tools, using the general education and other degree requirements to provide opportunities for students to acquire the knowledge and skills they need to demonstrate the hallmarks of the educated person:

- Effective writing and oral communication skills
- Competence in the use of information technology
- Competence in information literacy skills
- Competence in mathematical and quantitative reasoning skills
- Competence in critical analysis, critical reasoning, and problem solving
- Understanding of key concepts and principles of the natural, social, and behavioral sciences
- Knowledge of diverse cultures and historical periods
- Understanding of frameworks for ethical decision making and the ability to apply them

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

In pursuit of an academic major (and minor), the UMUC student has the ability 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 a student is expected to acquire in completing the major.

REQUIREMENTS

In general, the UMUC degree requirements that apply to a student are those that were in effect when the student began continuous enrollment in any public institution of higher education in Maryland (including UMUC). If the student has not been continuously enrolled, the requirements that apply are those in effect at UMUC when the student resumes continuous enrollment. To be considered continuously enrolled, degree-seeking students must be or have been enrolled at UMUC or another Maryland public institution of higher education and have had no more than two sequential years of nonenrollment. When a continuously enrolled student chooses to change his or her degree program, the student may be subject to all degree requirements in effect at the time of the change.

The following requirements for the BA, BS, BSN, and BTPS are applicable to students who enroll on or after August 1, 2014.

✛ *More information about certificates, including gainful employment disclosures, is available at* www.umuc.edu/ugcertificates.

BACHELOR'S DEGREE REQUIREMENTS

GENERAL EDUCATION REQUIREMENTS   CREDITS

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

Note: Courses applied to general education requirements may not be applied toward major, minor, or elective requirements and may not be taken pass/fail.

A. Communications   12

WRTG 101 or WRTG 101S (3 credits)
Must be completed within the first 18 credits. Placement test required for WRTG 101. May not be earned through course-challenge examination.

Another writing course (3 credits)
All 3-credit WRTG courses (except WRTG 288, 388, 486A, or 486B), ENGL 102, and JOUR 201 apply.

A course in communication, writing, or speech (3 credits)
All 3-credit COMM, SPCH, and WRTG courses (except 486A and 486B); ENGL 102, 281, and 384; and JOUR 201 apply.

An upper-level advanced writing course (3 credits)
WRTG 391, 393, and 394 apply.
May not be earned through credit by examination.

No more than 3 credits in writing may be earned by examination.

B. Arts and Humanities   6

One course that offers a historical perspective (any 3-credit ARTH or HIST course except ARTH 100).

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

The two courses must be in different disciplines.

C. Behavioral and Social Sciences   6

One 3-credit course each in two of the following disciplines: AASP (AASP 201 only), ANTH, ASTD (depending on course content), BEHS, CCJS (CCJS 100, 105, 350, 360, 453, and 461 only), ECON, GEOG, GERO (except GERO 342 and 351), GVPT, PSYC, SOCY, or WMST (WMST 200 only).

D. 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 may satisfy both requirements: ASTR, BIOL, CHEM, GEOL, NSCI, PHYS, biotechnology, botany, entomology, general science, and zoology. NUTR 100 may satisfy the requirement for a 3-credit science lecture course.

E. Mathematics   3

MATH 106, MATH 107, or a mathematics course at or above the level of college algebra.

Must be completed within the first 18 credits. Placement test required.

Note: MATH 115 (or MATH 107–108) is required for the majors in computer science and environmental management.

F. Interdisciplinary or Emerging Issues   7

One course (LIBS 150) in introductory research (1 credit), which must be completed within the first 18 credits.

A total of 6 credits in computing courses as follows:

- IFSM 201 or CMST 301 (3 credits)
- An additional computing course appropriate to the academic major (3 credits)

Students should refer to the specific major for requirements or recommendations. Unless otherwise specified, upper- or lower-level courses designated CMIS, CMIT, CMSC, CMST, CSIA, IFSM, and SDEV and ACCT 326 apply. **Note:** IFSM 300 is required for majors in public safety administration and all business-related fields.

Total General Education Requirements   41

MAJOR, MINOR, AND ELECTIVE REQUIREMENTS   CREDITS

A. Academic Major   30–38

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 UMUC. No grade may be lower than C. Specific coursework is prescribed for each major and is described in the following chapter.

Students may receive a dual 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; however, the same course may not 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. Students may not major in two programs with excessive overlap of required coursework. Students should consult an advisor before selecting a double major.

B. Academic Minor 15–17

Choosing a minor is strongly encouraged even though it is optional for all but accounting majors. Students may not take a major and minor in the same area and may not receive a dual 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 UMUC.

No grade may be lower than C. Specific coursework is prescribed for each minor and is described in the following chapter.

C. Electives 24–34

Electives may be taken in any academic discipline. No more than 21 credits may consist of vocational or technical credit (described on p. 217). Pass/fail credit, up to a maximum of 18 credits, may be applied toward electives only.

Total Major, Minor, and Elective Requirements 79

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. Students must complete a minimum of 120 credits.

2. Students 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.

3. Within the 120 credits required, the following coursework must be taken through UMUC:
    – 30 credits (normally the final 30)
    – Half of the required number of credits within both the major and the minor
    – 15 credits at the upper level (i.e., earned in courses numbered 300 to 499), preferably within the major or minor

4. At least 45 credits must be upper level and include
    – At least one-half of the credits required for the major
    – 3 credits in advanced writing

    The remaining upper-level credits may be earned in any part of the curriculum.

5. At least half the required number of credits for any academic major or minor must be earned through graded coursework. Credit earned by examination, portfolio assessment, or noncollegiate training does not count as graded coursework.

Total Degree Requirements 120 Credits

Second Bachelor's Degree

At UMUC, students who have already received a bachelor's degree from UMUC or from another approved institution can broaden their education by earning a second bachelor's degree with a different major. However, students may not earn a second bachelor's degree with a double major. Students may not earn a second degree in general studies and may not obtain an academic minor or a second associate's degree within the second bachelor's degree.

A student must have received the first bachelor's degree to be eligible to begin a second. For a second bachelor's degree, the student needs to complete at least 30 credits through UMUC after completing the first degree. The combined credit in both degrees must add up to at least 150 credits.

To qualify for academic honors in a second bachelor's degree, the student must complete at least 45 new credits through UMUC with the requisite grade point average.

Students must complete all requirements for the major. All course prerequisites apply. If any of these requirements were satisfied in the previous degree, the remainder necessary to complete the minimum 30 credits of new courses should be satisfied with courses related to the major. For purposes of determining what major requirements apply to a given student, the applicable date is the date the student started coursework at UMUC after being admitted into the second undergraduate degree program. As with other degrees, continuous enrollment at UMUC is required. A minimum grade point average of 2.0 in all courses taken through UMUC is required for graduation.

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

BACHELOR'S DEGREE CURRICULA

The academic major requires 30 to 38 credits, while the minor (optional) requires 15 to 17 credits. Students must maintain a minimum grade point average of 2.0 (C) and earn a minimum grade of C (2.0) for any course applied to the major or minor.

Half of the credit applied toward any major must be upper level, and at least half of the credit for any major or minor must be taken through UMUC. At least half of the credit applied toward a major or minor must be earned through graded coursework. A maximum of six 1-credit courses may be applied to a major or minor. Students must also fulfill all overall requirements for the bachelor's degree (listed on p. 9).

Majors and minors are described in the following section.

Majors

Most majors are available only for the Bachelor of Arts (BA) or the Bachelor of Science (BS) degree. Only two majors are available for either the Bachelor of Technical and Professional Studies (BTPS) or the BS degree. The major in nursing for registered nurses is available only for the Bachelor of Science in Nursing (BSN). All students with dual majors are awarded the BS degree, regardless of major.

Available for the BA

Available for the BS

Available for the BSN†

Available for the BTPS or BS‡

Minors

Academic minors are strongly recommended but optional. They are available in the following areas:

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* Available only to active-duty military personnel in UMUC Europe and UMUC Asia and certain others who conform to special stipulations. General studies is not available for a double major.

† Available only to students with an active, unencumbered registered nurse license and an associate's degree in nursing from an approved community college.

‡ Available only to students who have completed the required lower-level coursework for the major either within an Associate of Applied Science degree at a community college with which UMUC has an articulation agreement or within another appropriate transfer program. Students should consult an advisor before selecting these majors.

Accounting

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

Major in Accounting

The accounting major combines theory and practice to help prepare students for analysis of and reporting on the economic activities of organizations and communication of that information to decision makers. Students have the opportunity to develop skills in managerial accounting, budgeting, accounting systems, internal controls, financial analysis, financial reporting, internal and external auditing, taxation, and international accounting. The major helps prepare students for a range of accounting careers in profit, not-for-profit, and government organizations.

An articulation agreement between UMUC's Undergraduate School and Graduate School allows eligible students who complete their undergraduate degree at UMUC with a major in accounting to reduce their total coursework for the graduate degree by 6 credits (two courses) and complete both degrees with a total of 150 credits of coursework. More information is available in the graduate catalog.

Intended Program Outcomes

The student who graduates with a major in accounting should be able to

- Work effectively with interdisciplinary professionals and diverse stakeholders.
- Communicate with financial and nonfinancial audiences in a clear and concise manner, by making appropriate decisions about relevancy, reliability, and medium.
- Research, prepare, analyze, and review financial and business data by applying accounting and business management principles and standards to produce financial and business reports.
- Proficiently use current technology and analytical tools to perform business functions, work collaboratively, and facilitate decision making.
- Employ analysis, critical thinking, and problem solving to identify, test, and validate processes, systems, and financial data to advise stakeholders.
- Define, develop, and demonstrate ethical business practices and accountability by identifying and addressing current and emerging ethical and regulatory issues.

- Develop professionally by collaborating, training, mentoring, negotiating, solving problems creatively, and participating in net-working activities to demonstrate and develop leadership skills.

Degree Requirements

A degree with a major in accounting requires the successful completion of 120 credits of coursework, including 54 credits for the major and mandatory minor in business administration, 41 credits in general education requirements, and 25 credits in electives and other requirements. At least 18 credits in the major and 9 credits in the minor must be earned in upper-level courses (numbered 300 or above).

REQUIREMENTS FOR THE ACCOUNTING MAJOR

Coursework for a major in accounting, with a mandatory minor in business administration, includes the following:

- Required core courses (21 credits): ACCT 220, 221, 310, 311, 321, 323, and 422
- Supplemental major courses (12 credits): Any upper-level ACCT courses
- Required capstone course (3 credits): ACCT 495
- Required minor courses (18 credits): STAT 230 (or STAT 200); ACCT 411 (or BMGT 496); BMGT 364 and 380; FINC 330; and MRKT 310
- Required related courses (9 credits), which may be applied anywhere in the degree: IFSM 300 and ECON 201 and 203

RECOMMENDED SEQUENCE

The following course sequence will fulfill all the requirements for the BS in Accounting. Coursework for the major is indicated by ◆. Since some recommended courses fulfill more than one requirement, substituting courses for those listed may make it necessary to take additional courses to meet degree requirements. Students should consult an advisor whenever taking advantage of other options. Information on alternate courses (where al-lowable) to fulfill general education requirements (in commu-nications, arts and humanities, behavioral and social sciences, biological and physical sciences, mathematics, and interdisciplin-ary issues) may be found on p. 8.

Accounting Degree Courses		Credits

First Courses *(to be taken within the first 18 credits)*
Note: Placement tests are required for math and writing courses.

LIBS 150	Introduction to Research	1
WRTG 101	Introduction to Writing	3
or WRTG 101S	Introduction to Writing	
MATH 106	Finite Mathematics *or a higher-level math course*	3

BMGT 110	Introduction to Business and Management *(strongly recommended elective for students with no prior business experience)*	3
◆ ACCT 220	Principles of Accounting I	3

Introductory Courses *(to be taken within the first 30 credits)*

◆ ACCT 221	Principles of Accounting II	3
ECON 201	Principles of Macroeconomics *(related requirement for the major; also fulfills the first behavioral and social sciences requirement)*	3
BIOL 103	Introduction to Biology *or other biological and physical sciences lecture and laboratory course(s)*	4
WRTG 293	Introduction to Professional Writing *or other writing course*	3
IFSM 201	Concepts and Applications of Information Technology *(prerequisite to later course)*	3

Foundation Courses *(to be taken within the first 60 credits)*

HUMN 100	Introduction to Humanities *or other arts and humanities course*	3
◆ STAT 230	Introductory Business Statistics	3
or STAT 200	Introduction to Statistics	
ECON 203	Principles of Microeconomics *(related requirement for the major)*	3
BEHS 103	Technology in Contemporary Society *or other behavioral and social sciences course (discipline must differ from first)*	3
NSCI 100	Introduction to Physical Science *or other biological and physical sciences lecture course*	3
◆ ACCT 310	Intermediate Accounting I	3
HIST 125	Technological Transformations *or other arts and humanities/historical perspective course (discipline must differ from other humanities course)*	3
◆ ACCT 321	Cost Accounting	3
COMM 202	Media and Society *or other communication, writing, or speech course*	3
IFSM 300	Information Systems in Organizations *(related requirement for the major; also fulfills the computing requirement)*	3

Additional Required Courses *(to be taken after introductory and foundation courses)*

◆ BMGT 364	Management and Organization Theory	3
◆ ACCT 311	Intermediate Accounting II	3
◆ ACCT 323	Federal Income Tax I	3
◆ ACCT 411	Ethics and Professionalism in Accounting	3
or BMGT 496	Business Ethics	
◆ ACCT 422	Auditing Theory and Practice	3
WRTG 394	Advanced Business Writing *or other upper-level advanced writing course*	3
◆ ACCT 436	Internal Auditing *or other upper-level ACCT course (supplemental major course)*	3

◆ ACCT 425	International Accounting *or other supplemental major course*	3
◆ FINC 330	Business Finance	3
◆ ACCT 433	Audit and Control of Information Technology *or other supplemental major course*	3
◆ BMGT 380	Business Law I	3
◆ ACCT 438	Fraud and Forensic Accounting *or other supplemental major course*	3
◆ MRKT 310	Marketing Principles	3

Capstone Course for Major *(to be taken in the last 15 credits)*

| ◆ ACCT 495 | Contemporary Issues in Accounting Practice | 3 |

Additional Elective Courses *(to be taken in the last 60 credits along with required major courses)* 19

Recommended Electives

ACCT 326	Accounting Information Systems
ACCT 410	Accounting for Government and Not-for-Profit Organizations
ACCT 424	Advanced Accounting *(highly recommended for those who wish to sit for the CPA exam)*
ACCT 452	Federal Auditing

| **Total credits for BS in Accounting** | **120** |

Minor in Accounting

The accounting minor complements the skills the student gains in his or her 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.

Requirements for the Minor

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, students should refer to their major and pp. 8–9.

African American Studies

Students may seek an academic minor in African American Studies.

Minor in African American Studies

The African American atudies minor complements the skills the student gains in his or her major discipline by offering an interdisciplinary approach to study of the contemporary life, history, and culture of African Americans.

Requirements for the Minor

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

AASP	Any course
CCJS 370	Race, Crime, and Criminal Justice
ENGL 363	African American Authors from the Colonial Era to 1900
ENGL 364	African American Authors from 1900 to the Present
HIST 255	African American History
HIST 460	African American History: 1500 to 1865
HIST 461	African American History: 1865 to the Present
SOCY 423	Minorities in the United States
SOCY 424	Race and Ethnic Relations

It is recommended that students take AASP 201 as the first course in the minor (if they 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, students should refer to their major and pp. 8–9.

BACHELOR'S DEGREE CURRICULA

Art

Students may seek an academic minor in art.

Minor in Art

The art minor complements the skills the student gains in his or her major discipline by offering an aesthetic and personal exploration of imagery, media, and composition through a balance of art theory and practice.

Requirements for the Minor

A minor in art requires the completion of 15 credits of art coursework, chosen from any ARTT and GRCO courses (except GRCO 495). It is recommended that students take ARTT 110 and 210 (or ARTT 320) as the first courses in the minor (if they 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, students should refer to their major and pp. 8–9.

Art History

Students may seek an academic minor in art history.

Minor in Art History

The art history minor complements the skills the student gains in his or her major discipline by helping to develop skills in historical and cultural interpretation and critical analysis of works of architecture, sculpture, painting, and the allied arts.

Requirements for the Minor

A minor in art history requires the completion of 15 credits in art history. All ARTH 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, students should refer to their major and pp. 8–9.

Biology

Students may seek an academic minor in Biology.

Minor in Biology

The biology minor complements the skills the student gains in his or her major discipline by helping to provide an underlying scientific base upon which to build a career in the life sciences, allied health fields, bioinformatics, environmental management, science journalism, or science education.

Requirements for the Minor

A minor in biology requires the completion of 15 credits of coursework in biology. Any 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, students should refer to their major and pp. 8–9.

Biotechnology

Students who 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 UMUC has an articulation agreement or within another appropriate transfer program—may seek an academic major in biotechnology. Students should consult an advisor before electing this major.

Major in Biotechnology

The biotechnology major helps prepare students for the biotechnology industry by building on the technical and scientific knowledge gained through the associate's degree program and direct experience in the field. It combines laboratory skills and applied coursework with a biotechnology internship experience and upper-level study. The biotechnology curriculum covers general biological and chemical sciences, biotechniques, bioinstrumentation, bioinformatics, microbiology, molecular biology, and cell biology. Study is designed to help students who wish to enter pharmaceutical, agricultural, and biomedical research industries and organizations as laboratory technicians, quality control technicians, assay analysts, chemical technicians, or bioinformaticists.

Intended Program Outcomes

The student who graduates with a major in biotechnology should be able 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 to staff and stakeholders.
- Offer technical support, customer assistance, and cost-benefit analyses in the application of 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 to collect data that are appropriately validated and documented.
- Comply with and adhere to national, state, and local standards, policies, protocols, and regulations for laboratory and manufacturing activity.
- Develop an action plan that includes the continuous pursuit of education, training, and research to keep current on biotechnology practices and trends for personal and professional development.
- Apply scientific knowledge and principles, quantitative methods, and technology tools to think critically and solve complex problems in biotechnology.

Degree Requirements

A degree with a major in biotechnology requires the successful completion of 120 credits of coursework, including 36 credits for the major; 41 credits in general education requirements; and 43 credits in the minor, electives, and other degree requirements. At least 18 credits in the major must be earned in upper-level courses (numbered 300 or above).

REQUIREMENTS FOR THE BIOTECHNOLOGY MAJOR

Coursework for a major in biotechnology includes the following lower-level coursework taken as part of an appropriate degree program at an approved community college or other institution:

- Foundation courses (15 credits): General microbiology (with laboratory), general genetics (with laboratory), biotechnology techniques (with laboratory), or laboratory techniques (with laboratory)
- Required related courses (17 credits), which may be applied anywhere in the bachelor's degree: Chosen from biotechnology, biochemistry, cell biology, chemistry, genetics, immunology, microbiology, molecular biology, physics, and virology courses

Coursework for a major in biotechnology also includes the following:

- Required core courses (9 credits): BIOL 325, 350, and 400
- Required workplace learning internship course(s) (6 credits): BIOL 486A, BIOL 486B, or workplace learning in any discipline related to biotechnology
- Supplemental major course in biological applications (3 credits): Chosen from BIOL 320, 334, 357, and an additional workplace learning internship
- Supplemental major course(s) in specialized topics (3 credits): Chosen from any BIOL course numbered 320 or above and NSCI 301 (No more than three 1-credit courses may be applied to the major.)

RECOMMENDED SEQUENCE

The following course sequence will fulfill all the requirements for the BTPS or BS in Biotechnology (if the student selects appropriate courses as part of the transfer coursework). Coursework for the major is indicated by ◆. Since some recommended courses fulfill more than one requirement, substituting courses for those listed may make it necessary to take additional courses to meet degree requirements. Students should consult an advisor whenever taking advantage of other options. Information on alternate courses (where allowable) to fulfill general education requirements (in communications, arts and humanities, behavioral and social sciences, biological and physical sciences, mathematics, and interdisciplinary issues) may be found on p. 8.

Biotechnology Degree Courses — **Credits**

Required Courses from Transfer Institution

◆ Lower-level coursework in the following areas: — 15
  General microbiology with lab
  General genetics with lab
  Biotechnology techniques with lab
  Laboratory techniques with lab

Additional coursework related to biotechnology — 17
Selected from biotechnology, biochemistry, cell biology, chemistry, genetics, immunology, microbiology, molecular biology, physics, and virology (should also fulfill general education requirements in biological and physical sciences)

First Courses *(to be taken within the first 18 credits at UMUC if not brought in transfer)*
Note: Placement tests are required for math and writing courses.

LIBS 150	Introduction to Research	1
WRTG 101	Introduction to Writing	3
or WRTG 101S	Introduction to Writing	
MATH 106	Finite Mathematics	3
	or a higher-level math course	

Introductory and General Education Courses *(to be taken within the first 30 credits)*

IFSM 201	Concepts and Applications of Information Technology	3
or CMST 301	Digital Media and Society	
WRTG 293	Introduction to Professional Writing *or other writing course*	3
ECON 103	Economics in the Information Age *or other behavioral and social sciences course*	3
HUMN 100	Introduction to Humanities *or other arts and humanities course*	3
BEHS 103	Technology in Contemporary Society *or other behavioral and social sciences course (discipline must differ from first)*	3
HIST 125	Technological Transformations *or other arts and humanities/historical perspective course (discipline must differ from other humanities course)*	3
COMM 202	Media and Society *or other communication, writing, or speech course*	3
CMIS 111	Social Networking and Cybersecurity Best Practices *or other computing course*	3

Additional Required Courses *(to be taken after introductory and general education courses)*

WRTG 393	Advanced Technical Writing *or other upper-level advanced writing course*	3
◆ BIOL 325	Inquiries in Biological Science	3
◆ BIOL 350	Molecular and Cellular Biology	3
◆ BIOL 400	Life Science Seminar	3
◆ BIOL 357	Bioinformatics *or other supplemental major course in biological applications*	3
◆ BIOL 422	Epidemiology of Emerging Infections *or other supplemental major course in specialized topics*	3

Internship for Major *(to be taken in the last 30 credits)*

◆ BIOL 486B	Workplace Learning in Biology	6
or BIOL 486A	Workplace Learning in Biology *(taken twice) or workplace learning in a related discipline*	

Minor and/or Elective Courses *(to be taken in the last 60 credits along with required major courses)* — 33

Recommended Electives

BMGT 317	Decision Making
FINC 331	Finance for the Nonfinancial Manager
SPCH 482	Intercultural Communication

Total credits for BS or BTPS in Biotechnology — **120**

Business Administration

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

Major in Business Administration

The business administration curriculum helps provide the skills and knowledge necessary for a successful career in business and management. It includes studies in accounting, business law and public policy, business supply chain management, customer service and operations management, ethics and social responsibility, finance, human resource management and labor relations, international business, small business and entrepreneurship, strategic management, organizational behavior, marketing and sales, and statistical analysis. A major in business administration helps prepare graduates for careers in for-profit and not-for-profit organizations and the public sector.

An articulation agreement between UMUC's Undergraduate School and Graduate School allows eligible students who complete their undergraduate degree at UMUC with a major in business administration to waive the prerequisite course for the graduate degree. More information is available in the graduate catalog.

Intended Program Outcomes

The student who graduates with a major in business administration should be able to

- Plan and communicate a shared vision for the organization that will drive strategy, assist with decision making, and position the organization in the business environment.
- Employ critical thinking to evaluate qualitative and quantitative data and effectively communicate across all layers of the organization.
- Develop, communicate, implement, and follow policies and procedures that inform and guide operations to reduce cost and organizational risk and promote ethical practices.
- Manage people, time, and resources by utilizing 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

A degree with a major in business administration requires the successful completion of 120 credits of coursework, including 36 credits for the major; 41 credits in general education requirements; and 43 credits in the minor, electives, and other degree requirements. At least 18 credits in the major must be earned in upper-level courses (numbered 300 or above).

REQUIREMENTS FOR THE BUSINESS ADMINISTRATION MAJOR

Coursework for a major in business administration includes the following:

- Foundation courses (12 credits): BMGT 110 (or prior business experience and an additional course chosen from ACCT, BMGT, ENMT, FINC, HMGT, HRMN, or MRKT courses), ACCT 220 and 221, and STAT 230 (or STAT 200)
- Required core courses (21 credits): BMGT 364, 365, 380, and 496; FINC 330; HRMN 300; and MRKT 310
- Required capstone course (3 credits): BMGT 495
- Required related courses (9 credits), which may be applied anywhere in the degree: IFSM 300 and ECON 201 and 203

RECOMMENDED SEQUENCE

The following course sequence will fulfill all the requirements for the BS in Business Administration. Coursework for the major is indicated by ◆. Since some recommended courses fulfill more than one requirement, substituting courses for those listed may make it necessary to take additional courses to meet degree requirements. Students should consult an advisor whenever taking advantage of other options. Information on alternate courses (where allowable) to fulfill general education requirements (in communications, arts and humanities, behavioral and social sciences, biological and physical sciences, mathematics, and interdisciplinary issues) may be found on p. 8.

Business Administration Degree Courses		Credits

First Courses *(to be taken within the first 18 credits)*
Note: Placement tests are required for math and writing courses.

LIBS 150	Introduction to Research	1
WRTG 101	Introduction to Writing	3
or WRTG 101S	Introduction to Writing	
MATH 106	Finite Mathematics	3
	or a higher-level math course	
◆ BMGT 110	Introduction to Business and Management	3
	(students with business experience should substitute an additional business course in the last 60 credits of study)	

Introductory Courses *(to be taken within the first 30 credits)*

ECON 201	Principles of Macroeconomics	3
	(related requirement for the major; also fulfills the first behavioral and social sciences requirement)	
BIOL 103	Introduction to Biology	4
	or other biological and physical sciences lecture and laboratory course(s)	
WRTG 293	Introduction to Professional Writing	3
	or other writing course	
IFSM 201	Concepts and Applications of Information Technology	3
	(prerequisite to later course)	
◆ ACCT 220	Principles of Accounting I	3
HUMN 100	Introduction to Humanities	3
	or other arts and humanities course	

Foundation Courses *(to be taken within the first 60 credits)*

◆ STAT 230	Introductory Business Statistics	3
or STAT 200	Introduction to Statistics	
BEHS 103	Technology in Contemporary Society	3
	or other behavioral and social sciences course (discipline must differ from first)	
◆ ACCT 221	Principles of Accounting II	3
NSCI 100	Introduction to Physical Science	3
	or other biological and physical sciences lecture course	
ECON 203	Principles of Microeconomics	3
	(related requirement for the major)	
HIST 125	Technological Transformations	3
	or other arts and humanities/historical perspective course (discipline must differ from other humanities course)	
COMM 202	Media and Society	3
	or other communication, writing, or speech course	
IFSM 300	Information Systems in Organizations	3
	(related requirement for the major; also fulfills the computing requirement)	

Additional Required Courses *(to be taken after introductory and foundation courses)*

◆ BMGT 364	Management and Organization Theory	3
WRTG 394	Advanced Business Writing	3
	or other upper-level advanced writing course	
◆ 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

Capstone Course for Major *(to be taken in the last 15 credits)*

◆ BMGT 495	Strategic Management	3

Minor and/or Elective Courses *(to be taken in the last 60 credits along with required major courses)* — 40

Recommended Minors

Human resource management, marketing, finance, or other business-related minor

Recommended Electives

MATH 140	Calculus I	
	(for students who plan to go on to graduate school; students should note prerequisites)	
WRTG 490	Writing for Managers	

Total credits for BS in Business Administration — **120**

Minor in Business Administration

The business administration minor complements the skills the student gains in his or her major discipline by providing a study of principles and techniques used in organizing, planning, managing, and leading within various organizations.

Requirements for the Minor

A minor in business administration requires the completion of 15 credits of coursework in business administration. Any ACCT, BMGT, FINC, HMGT, HRMN, and MRKT courses apply. It is recommended that students take BMGT 364 as the first course in the minor (if they 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, students should refer to their major and pp. 8–9.

Communication Studies

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

Major in Communication Studies

The major in communication studies helps provide students with an appropriate balance of theoretical knowledge and sophisticated, practical communication skills. Students have the opportunity to learn how people create and use messages to generate meaning within and across various contexts, cultures, channels, and media. The multidisciplinary curriculum covers speech communication, mass communication and new media, journalism, public relations, business writing, and technical writing. It encourages students to develop written, oral, and visual communication skills; to apply communication theories to both personal and professional situations; and to increase their understanding of human interaction. Students with a major in communication studies may pursue a wide variety of careers in areas such as journalism, public relations, marketing, communication, and professional writing.

Intended Program Outcomes

The student who graduates with a major in communication studies should be able to

- Apply analytical skills in interpreting, using, and delivering information, particularly through mass media.
- Create professional written, oral, and visual communication for specific purposes and diverse audiences, applying structural and stylistic conventions.
- Design, create, and/or select multimedia components and integrate them into print, broadcast, and online media-rich resources.
- Manage successful communication activities within the ethical, legal, and financial parameters of the project and of the profession.
- Work with individuals and groups in ways that reflect an understanding of both communication theory and professional expectations.
- Use an understanding of diverse and intercultural perspectives as they affect communication practices.
- Design and/or employ specific research methodologies and tools to gather information for specific purposes.

Degree Requirements

A degree with a major in communication studies requires the successful completion of 120 credits of coursework, including 33 credits for the major; 41 credits in general education require-

ments; and 46 credits in the minor, electives, and other degree requirements. At least 17 credits in the major must be earned in upper-level courses (numbered 300 or above).

REQUIREMENTS FOR THE COMMUNICATION STUDIES MAJOR

Coursework for a major in communication studies includes the following:

- Required foundation courses (6 credits): COMM 300 and 302
- Speech communication course (3 credits): Any SPCH course
- Mass communication/media studies course (3 credits): Chosen from COMM 400, 410, and 493 and any JOUR courses
- Diversity communication courses (6 credits): Chosen from COMM 380 and SPCH 324, 472, and 482
- Specialization courses chosen from a single area (9 credits):
  - Professional writing: Chosen from WRTG 393, 394, 459, 489, 490, 493, 494, and 496
  - Speech communication: Chosen from any upper-level SPCH courses
  - Media studies: Chosen from COMM 400, 410, 459, and 493 and any JOUR courses
- Required research methods course (3 credits): COMM 480
- Required capstone course (3 credits): COMM 495

RECOMMENDED SEQUENCE

The following course sequence will fulfill all the requirements for the BA in Communication Studies. Coursework for the major is indicated by ◆. Since some recommended courses fulfill more than one requirement, substituting courses for those listed may make it necessary to take additional courses to meet degree requirements. Students should consult an advisor whenever taking advantage of other options. Information on alternate courses (where allowable) to fulfill general education requirements (in communications, arts and humanities, behavioral and social sciences, biological and physical sciences, mathematics, and interdisciplinary issues) may be found on p. 8.

Communication Studies Degree Courses		Credits
First Courses *(to be taken within the first 18 credits)*		
Note: Placement tests are required for math and writing courses.		
LIBS 150	Introduction to Research	1
WRTG 101	Introduction to Writing	3
or WRTG 101S	Introduction to Writing	
MATH 106	Finite Mathematics	3
	or a higher-level math course	
Introductory Courses *(to be taken within the first 30 credits)*		
◆ SPCH 100	Foundations of Oral Communication	3
	or any speech course for the major	

HIST 125	Technological Transformations	3
	or other arts and humanities/historical perspective course	
BIOL 103	Introduction to Biology	4
	or other biological and physical sciences lecture and laboratory course(s)	
WRTG 293	Introduction to Professional Writing	3
	or other writing course	
BEHS 103	Technology in Contemporary Society	3
	or other behavioral and social sciences course	
IFSM 201	Concepts and Applications of Information Technology	3
or CMST 301	Digital Media and Society	
Foundation Courses *(to be taken within the first 60 credits)*		
◆ COMM 300	Communication Theory	3
◆ COMM 302	Mass Communication and Media Studies	3
ECON 103	Economics in the Information Age	3
	or other behavioral and social sciences course (discipline must differ from first)	
NSCI 100	Introduction to Physical Science	3
	or other biological and physical sciences lecture course	
HUMN 100	Introduction to Humanities	3
	or other arts and humanities course (discipline must differ from other humanities course)	
COMM 202	Media and Society	3
	or other communication, writing, or speech course	
CMIS 111	Social Networking and Cybersecurity Best Practices	3
	or other computing course	
Additional Required Courses *(to be taken after introductory and foundation courses)*		
WRTG 393	Advanced Technical Writing	3
or WRTG 394	Advanced Business Writing	
	or other upper-level advanced writing course	
◆ COMM 400	Mass Media Law	3
	or other mass communication course for the major	
◆ COMM 380	Language in Social Contexts	3
	or other diversity communication course for the major	
◆ SPCH 482	Intercultural Communication	3
	or other diversity communication course for the major	
◆ SPCH 324	Communication and Gender	3
	or other specialization course for the major	
◆ SPCH 426	Conflict Management	3
	or other specialization course for the major	
◆ SPCH 470	Effective Listening	3
	or other specialization course for the major	
◆ COMM 480	Research Methods in Communication Studies	3
Capstone Course for Major *(to be taken in the last 15 credits)*		
◆ COMM 495	Senior Seminar in Communication Studies	3
Minor and/or Elective Courses *(to be taken in the last 60 credits along with required major courses)*		46
Total credits for BA in Communication Studies		**120**

Minor in Communication Studies

The communication studies minor complements the skills the student gains in his or her major discipline by helping to provide specialized skills in workplace communication, including the development of written and oral communication skills and a greater understanding of human interaction.

Requirements for the Minor

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 students take COMM 300 early in the minor (if they 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, students should refer to their major and pp. 8–9.

Computer Networks and Security

Students may seek an academic major in computer networks and security.

Major in Computer Networks and Security

The computer networks and security major helps prepare students to enter or advance in computer networking fields where industry-standard certifications are commonly used to show skills or knowledge level and are considered essential in hiring and promotion decisions. The curriculum focuses on the techniques, policies, operational procedures, and technologies needed to design, implement, administer, secure, and trouble-shoot enterprise-level networks. The major helps prepare students for careers as network managers, systems administrators, and network security analysts. It is designed to combine the benefits of a traditional college education with the benefits of hands-on training in state-of-the-art computer technology. The computer networks and security curriculum integrates technical skill with communication skills, superior general education knowledge, and breadth of knowledge in the information technology field, particularly in networks and security.

Intended Program Outcomes

The student who graduates with a major in computer networks and security should be able to

- Design, implement, and administer local-area and wide-area networks to satisfy organizational goals.
- Resolve information technology (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.
- Meet organizational goals in completing individual and team assignments using effective workforce skills, best practices, and ethical principles.
- Effectively communicate IT knowledge to diverse audiences using a wide range of presentation modalities.

Degree Requirements

A degree with a major in computer networks and security requires the successful completion of 120 credits of coursework, including 33 credits for the major; 41 credits in general education requirements; and 46 credits in the minor, electives, and other degree requirements. At least 17 credits in the major must be earned in upper-level courses (numbered 300 or above), and 18 credits in courses designated CMIT.

REQUIREMENTS FOR THE COMPUTER NETWORKS AND SECURITY MAJOR

Coursework for a major in computer networks and security includes the following:

- Required foundation courses (6 credits): CMIT 202 and 265
- Required core courses (9 credits): CMIT 320, 350, and 369
- Supplemental major courses (15 credits): Any upper-level CMIT courses or CCJS 321 (**Note:** Taking courses within a single topic area—Microsoft, Cisco, digital forensics, or security—is highly recommended.)
- Required capstone course (3 credits): CMIT 495

RECOMMENDED SEQUENCE

The following course sequence will fulfill all the requirements for the BS in Computer Networks and Security. Coursework for the major is indicated by ◆. Since some recommended courses fulfill more than one requirement, substituting courses for those listed may make it necessary to take additional courses to meet degree requirements. Students should consult an advisor whenever taking advantage of other options. Information on alternate courses (where allowable) to fulfill general education requirements (in communications, arts and humanities, behavioral and social sciences, biological and physical sciences, mathematics, and interdisciplinary issues) may be found on p. 8.

Computer Networks and Security Degree Courses **Credits**

First Courses *(to be taken within the first 18 credits)*
Note: Placement tests are required for math and writing courses.

LIBS 150	Introduction to Research	1
WRTG 101	Introduction to Writing	3
or WRTG 101S	Introduction to Writing	
MATH 106	Finite Mathematics	3
	or a higher-level math course	

Introductory Courses *(to be taken within the first 30 credits)*

IFSM 201	Concepts and Applications of Information Technology *(prerequisite to later coursework)*	3
HUMN 100	Introduction to Humanities *or other arts and humanities course*	3
BIOL 103	Introduction to Biology *or other biological and physical sciences lecture and laboratory course(s)*	4
CMIS 111	Social Networking and Cybersecurity Best Practices *or other computing course*	3
WRTG 293	Introduction to Professional Writing *or other writing course*	3
◆ CMIT 202	Fundamentals of Computer Troubleshooting	3
ECON 103	Economics in the Information Age *or other behavioral and social sciences course*	3

Foundation Courses *(to be taken within the first 60 credits)*

◆ CMIT 265	Fundamentals of Networking	3
BEHS 103	Technology in Contemporary Society *or other behavioral and social sciences course (discipline must differ from first)*	3
NSCI 100	Introduction to Physical Science *or other biological and physical sciences lecture course*	3
HIST 125	Technological Transformations *or other arts and humanities/historical perspective course (discipline must differ from other humanities course)*	3
COMM 202	Media and Society *or other communication, writing, or speech course*	3

Additional Required Courses *(to be taken after introductory and foundation courses)*

◆ CMIT 320	Network Security	3
◆ CMIT 350	Interconnecting Cisco Devices	3
◆ CMIT 369	Windows Server Installation and Configuration	3
WRTG 393	Advanced Technical Writing *or other upper-level advanced writing course*	3
◆ CMIT 364	Windows Desktop Operating Systems *or other supplemental major course*	3
◆ CMIT 370	Administering Windows Server *or other supplemental major course*	3
◆ CMIT 371	Configuring Advanced Windows Server Services *or other supplemental major course*	3
◆ CMIT 372	Designing and Implementing a Server Infrastructure *or other supplemental major course*	3
◆ CMIT 373	Implementing an Advanced Server Infrastructure *or other supplemental major course*	3

Capstone Course for Major *(to be taken in the last 15 credits)*

◆ CMIT 495	Current Trends and Projects in Computer Networks and Security	3

Minor and/or Elective Courses *(to be taken in the last 60 credits along with required major courses)* **46**

Recommended Minors

Business administration, cybersecurity, or information systems management

Recommended Electives

IFSM 304	Ethics in Information Technology	
MATH 140	Calculus I *or other calculus course (for students planning to go on to graduate school; students should note prerequisites)*	

Total credits for BS in Computer Networks and Security **120**

Computer Science

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

Major in Computer Science

The computer science major helps prepare students to plan, design, and optimize scalable computer software and hardware systems for use in commercial and government environments. It is designed for students who have a good background in mathematics and an interest in the theory, practice, art, and science of computer programming. The major helps provide graduates with an educational foundation appropriate for careers as software architects and engineers, application software designers, system analysts and programmers, and system engineers.

An articulation agreement between UMUC's Undergraduate School and Graduate School allows eligible students who complete their undergraduate degree at UMUC with a major in computer science to reduce their total coursework for the Master of Arts in Teaching by 12 credits (two courses) and complete both degrees with a total of 138 credits of coursework. More information is available in the graduate catalog.

BACHELOR'S DEGREE CURRICULA

Intended Program Outcomes

The student who graduates with a major in computer science should be able to

- 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 that securely support enterprise needs.
- Contribute and 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 the most appropriate solution to the problem.
- Identify and respond to emerging technology, models, methodologies, systems, and trends in human/computer interaction, including social networking, gaming, and modeling and simulation.

Degree Requirements

A degree with a major in computer science requires the successful completion of 120 credits of coursework, including 38 credits for the major; 41 credits in general education requirements; and 41 credits in the minor, electives, and other degree requirements. At least 19 credits in the major must be earned in upper-level courses (numbered 300 or above).

REQUIREMENTS FOR THE COMPUTER SCIENCE MAJOR

Coursework for a major in computer science includes the following:

- Required mathematics courses (8 credits): MATH 140 and 141
- Required foundation courses (9 credits): CMIS 141 and 242 and CMSC 150
- Required core courses (9 credits): CMSC 330, 335, and 350
- Supplemental major course (3 credits): CMIS 310, CMIS 330, or CMSC 325
- 400-level supplemental major courses (6 credits): Chosen from any 400-level CMSC courses except CMSC 486A and 486B
- Required capstone course (3 credits): CMSC 495

Computer Science Degree Courses		Credits
First Courses *(to be taken within the first 18 credits)*		
Note: Placement tests are required for math and writing courses.		
LIBS 150	Introduction to Research	1
WRTG 101	Introduction to Writing	3
or WRTG 101S	Introduction to Writing	
MATH 115	Pre-Calculus	3
or both MATH 107	College Algebra	
and MATH 108	Trigonometry and Analytical Geometry *(prerequisite for later courses)*	
Introductory Courses *(to be taken within the first 30 credits)*		
◆ MATH 140	Calculus I	4
IFSM 201	Concepts and Applications of Information Technology	3
or CMST 301	Digital Media and Society	
CMIS 102	Introduction to Problem Solving and Algorithm Design	3
	(prerequisite for later courses; also fulfills the computing requirement)	
ECON 103	Economics in the Information Age *or other behavioral and social sciences course*	3
BIOL 103	Introduction to Biology *or other biological and physical sciences lecture and laboratory course(s)*	4
HUMN 100	Introduction to Humanities *or other arts and humanities course*	3
Foundation Courses *(to be taken within the first 60 credits)*		
WRTG 293	Introduction to Professional Writing *or other writing course*	3
◆ CMSC 150	Introduction to Discrete Structures	3
◆ CMIS 141	Introductory Programming	3
◆ MATH 141	Calculus II	4
BEHS 103	Technology in Contemporary Society *or other behavioral and social sciences course (discipline must differ from first)*	3
NSCI 100	Introduction to Physical Science *or other biological and physical sciences lecture course*	3

◆ CMIS 242	Intermediate Programming	3
HIST 125	Technological Transformations	3
	or other arts and humanities/historical perspective course (discipline must differ from other humanities course)	
COMM 202	Media and Society	3
	or other communication, writing, or speech course	

Additional Required Courses (*to be taken after introductory and foundation courses*)

WRTG 393	Advanced Technical Writing	3
	or other upper-level advanced writing course	
◆ CMSC 350	Data Structures and Analysis	3
◆ CMSC 330	Advanced Programming Languages	3
◆ CMSC 335	Object-Oriented and Concurrent Programming	3
◆ CMIS 310	Computer Systems and Architecture	3
	or other supplemental major course	
◆ CMSC 451	Design and Analysis of Computer Algorithms	3
	or other 400-level supplemental major course	
◆ CMSC 465	Image and Signal Processing	3
	or other 400-level supplemental major course	

Capstone Course for Major (*to be taken in the last 9 credits*)

| ◆ CMSC 495 | Current Trends and Projects in Computer Science | 3 |

Minor and/or Elective Courses (*to be taken in the last 60 credits along with required major courses*) | | 41 |

Recommended Minors

Cybersecurity or mathematics

Recommended Electives

EDTP 500	Professional Fundamentals of Teaching and Learning	
	(for qualified students who plan to enter the MAT program at UMUC; students should note prerequisites and consult an advisor)	
EDTP 535	Adolescent Development and Learning Needs	
	(for qualified students who plan to enter the MAT program at UMUC; students should note prerequisites and consult an advisor)	

Total credits for BS in Computer Science | **120**

Minor in Computer Science

The computer science minor complements the skills the student gains in his or her 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.

Requirements for the Minor

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

•	CMIS 141	Introductory Programming *and*	
	CMIS 242	Intermediate Programming	
•	CMIS 115	Programming in Objective-C for the Mac *and*	
	CMIS 215	Programming for the iPhone and iPad	
•	CMIS 125	Programming in C# *and*	
	CMIS 225	Developing Windows Presentation Foundation Applications Using C#	

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, students should refer to their major and pp. 8–9.

Contract Management and Acquisition

Students may seek an academic minor in contract management and acquisition.

Minor in Contract Management and Acquisition

The minor in contract management and acquisition complements the skills the student gains in his or her major discipline by integrating concepts from various business disciplines to present the requirements and techniques used in federal contracting and the acquisition of goods and services. Focus is on the successful application of contract management principles and execution of all phases of the contract management process.

Requirements for the Minor

The minor in contract management and acquisition requires the completion of 15 credits of coursework related to contract management and acquisition.

Students must complete BMGT 339 Introduction to Federal Contracting.

The remaining coursework may be chosen from the following:

ACCT 350	Federal Financial Management
ACCT 410	Accounting for Government and Not-for-Profit Organizations
ACCT 451	Federal Accounting Management
BMGT 317	Decision Making
BMGT 372	Supply Chain Management
BMGT 375	Purchasing Management

BMGT 380	Business Law I
BMGT 482	Advanced Contracting
BMGT 487	Project Management I
BMGT 488	Project Management II
IFSM 438	Information Systems Project Management
WRTG 494	Grant and Proposal Writing

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, students should refer to their major and pp. 8–9.

Corporate Security

Students may seek an academic minor in corporate security.

Minor in Corporate Security

The corporate security minor complements the skills the student gains in his or her major discipline by providing a cross-disciplinary study of security management in a corporate environment. It is designed to help the student identify, at an early stage, and effectively mitigate or manage any developments that may threaten the resilience and continued survival of a corporation.

Requirements for the Minor

A minor in corporate security requires the completion of 15 credits in coursework related to corporate security.

Students must take the following courses:

CCJS 335	Introduction to Corporate Security
CCJS 345	Introduction to Security Management
CCJS 491	Institutional Security

Students must take one of the following courses:

| HMLS 408 | Infrastructure in Homeland Security |
| EMGT 304 | Emergency Response Preparedness and Planning |

Students must take one of the following courses:

| BMGT 472 | Business Continuity |
| EMGT 310 | Continuity of Operations Planning and Implementation |

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, students should refer to their major and pp. 8–9.

Criminal Justice

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

Major in Criminal Justice

The criminal justice program helps provide students with an understanding of the nature of crime and the personnel, institutions, and processes that prevent or respond to crime. Students are introduced to both the theory and practice of the criminal justice system. The curriculum covers crime and criminal behavior, law enforcement, courts, corrections, security, and investigation. It helps provide a solid foundation for further study or entry into a variety of criminal justice professions.

Intended Program Outcomes

The student who graduates with a major in criminal justice should be able to

- Communicate accurately, orally and in writing, to complete organizational missions to ensure public safety.
- 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.
- Utilize 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.

Degree Requirements

A degree with a major in criminal justice requires the successful completion of 120 credits of coursework, including 30 credits for the major; 41 credits in general education requirements; and 49 credits in the minor, electives, and other degree requirements. At least 15 credits in the major must be earned in upper-level courses (numbered 300 or above).

REQUIREMENTS FOR THE CRIMINAL JUSTICE MAJOR

Coursework for a major in criminal justice includes the following:

- Introductory course (3 credits): CCJS 100 or CCJS 105
- Required statistics course (3 credits): STAT 200
- Required core courses (12 credits): CCJS 340, 345, 380, and 497
- Supplemental major courses (9 credits): Any 3-credit CCJS courses (**Note:** Taking courses within a single topic area—law enforcement, law, corrections, security management, forensics, intelligence, or leadership—is highly recommended.)
- Required capstone course (3 credits): CCJS 495

RECOMMENDED SEQUENCE

The following course sequence will fulfill all the requirements for the BS in Criminal Justice. Coursework for the major is indicated by ◆. Since some recommended courses fulfill more than one requirement, substituting courses for those listed may make it necessary to take additional courses to meet degree requirements. Students should consult an advisor whenever taking advantage of other options. Information on alternate courses (where allowable) to fulfill general education requirements (in communications, arts and humanities, behavioral and social sciences, biological and physical sciences, mathematics, and interdisciplinary issues) may be found on p. 8.

Criminal Justice Degree Courses		Credits
First Courses *(to be taken within the first 18 credits)*		
Note: Placement tests are required for math and writing courses.		
LIBS 150	Introduction to Research	1
WRTG 101	Introduction to Writing	3
or WRTG 101S	Introduction to Writing	
MATH 106	Finite Mathematics	3
	or a higher-level math course	
◆ CCJS 100	Introduction to Criminal Justice	3
or CCJS 105	Introduction to Criminology	
Introductory Courses *(to be taken within the first 30 credits)*		
ECON 103	Economics in the Information Age	3
	or other behavioral and social sciences course	
BIOL 103	Introduction to Biology	4
	or other biological and physical sciences lecture and laboratory course(s)	
WRTG 293	Introduction to Professional Writing	3
	or other writing course	
IFSM 201	Concepts and Applications of Information Technology	3
or CMST 301	Digital Media and Society	
HUMN 100	Introduction to Humanities	3
	or other arts and humanities course	

Foundation Courses *(to be taken within the first 60 credits)*		
◆ STAT 200	Introduction to Statistics	3
BEHS 103	Technology in Contemporary Society	3
	or other behavioral and social sciences course (discipline must differ from first)	
NSCI 100	Introduction to Physical Science	3
	or other biological and physical sciences lecture course	
HIST 125	Technological Transformations	3
	or other arts and humanities/historical perspective course (discipline must differ from other humanities course)	
COMM 202	Media and Society	3
	or other communication, writing, or speech course	
CMIS 111	Social Networking and Cybersecurity Best Practices	3
	or other computing course	
◆ CCJS 340	Law-Enforcement Administration	3
Additional Required Courses *(to be taken after introductory and foundation courses)*		
WRTG 391	Advanced Research Writing	3
	or other upper-level advanced writing course	
◆ CCJS 345	Introduction to Security Management	3
◆ CCJS 380	Ethical Behavior in Criminal Justice	3
◆ CCJS 497	Correctional Administration	3
◆ CCJS 341	Criminal Investigation	3
	or other supplemental major course	
◆ CCJS 342	Crime Scene Investigation	3
	or other supplemental major course	
◆ CCJS 352	Drugs and Crime	3
	or other supplemental major course	
Capstone Course for Major *(to be taken in the last 9 credits)*		
◆ CCJS 495	Issues in Criminal Justice	3
Minor and/or Elective Courses *(to be taken in the last 60 credits along with required major courses)*		49
Recommended Elective		
CCJS 230	Criminal Law in Action	
Total credits for BS in Criminal Justice		**120**

Minor in Criminal Justice

The criminal justice minor complements the skills the student gains in his or her major discipline by providing a study of crime, law enforcement, courts, corrections, security, and investigative forensics.

Requirements for the Minor

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

BACHELOR'S DEGREE 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, students should refer to their major and pp. 8–9.

Cybersecurity

Students may seek either an academic major or minor in cybersecurity.

Major in Cybersecurity

The major in cybersecurity helps prepare graduates to be leaders in the protection of data assets. The curriculum focuses on the techniques, policies, operational procedures, and technologies that secure and defend the availability, integrity, authentication, confidentiality, and nonrepudiation of information and information systems, in local as well as more broadly based domains. The major helps prepare students for careers as information systems security professionals, senior system managers, and system administrators responsible for information systems and the security of those systems.

An articulation agreement between UMUC's Undergraduate School and Graduate School allows eligible students who complete their undergraduate degree at UMUC with a major in cybersecurity to reduce their total coursework for the MS in Cybersecurity or Cybersecurity Policy by 18 credits (three courses). More information is available in the graduate catalog.

Intended Program Outcomes

The student who graduates with a major in cybersecurity should be able to

- Protect an organization's critical information and assets by ethically integrating cybersecurity risk management and business continuity best practices throughout an enterprise.
- Implement continuous network monitoring and provide real-time security solutions.
- Analyze advanced persistent threats, deploy countermeasures, and conduct risk and vulnerability assessments of planned and installed information systems.
- Participate in forensic analysis of cyber incidents and assist in recovery of operations.
- Formulate, update, and communicate short- and long-term organizational cybersecurity strategies and policies.

Degree Requirements

A degree with a major in cybersecurity requires the successful completion of 120 credits of coursework, including 33 credits for the major; 41 credits in general education requirements; and 46 credits in the minor, electives, and other degree requirements. At least 17 credits in the major must be earned in upper-level courses (numbered 300 or above).

REQUIREMENTS FOR THE CYBERSECURITY MAJOR

Coursework for a major in cybersecurity includes the following:

- Required foundation courses (9 credits): CSIA 301, CMIT 265, and IFSM 304
- Required core courses (15 credits): CSIA 303, 412, and 413; CMIT 320; and CCJS 321
- Supplemental major courses (6 credits): Chosen from CCJS 390 and 421; CMIT 321, 340, 424, 425, 440, and 460; and any CSIA courses (**Note:** Taking courses within a single topic area—policy or technology—is highly recommended.)
- Required capstone course (3 credits): CSIA 485

RECOMMENDED SEQUENCE

The following course sequence will fulfill all the requirements for the BS in Cybersecurity. Coursework for the major is indicated by ◆. Since some recommended courses fulfill more than one requirement, substituting courses for those listed may make it necessary to take additional courses to meet degree requirements. Students should consult an advisor whenever taking advantage of other options. Information on alternate courses (where allowable) to fulfill general education requirements (in communications, arts and humanities, behavioral and social sciences, biological and physical sciences, mathematics, and interdisciplinary issues) may be found on p. 8.

Cybersecurity Degree Courses		Credits
First Courses *(to be taken within the first 18 credits)*		
Note: Placement tests are required for math and writing courses.		
LIBS 150	Introduction to Research	1
WRTG 101	Introduction to Writing	3
or WRTG 101S	Introduction to Writing	
MATH 106	Finite Mathematics	3
	or a higher-level math course	
Introductory Courses *(to be taken within the first 30 credits)*		
IFSM 201	Concepts and Applications of Information Technology	3
	(prerequisite to later courses)	

CMIS 102	Introduction to Problem Solving and Algorithm Design	3
	(prerequisite to later courses; also fulfills the computing requirement)	
HUMN 100	Introduction to Humanities	3
	or other arts and humanities course	
BIOL 103	Introduction to Biology	4
	or other biological and physical sciences lecture and laboratory course(s)	
WRTG 293	Introduction to Professional Writing	3
	or other writing course	
ECON 103	Economics in the Information Age	3
	or other behavioral and social sciences course	

Foundation Courses *(to be taken within the first 60 credits)*

BEHS 103	Technology in Contemporary Society	3
	or other behavioral and social sciences course (discipline must differ from first)	
◆ CSIA 301	Foundations of Cybersecurity	3
◆ IFSM 304	Ethics in Information Technology	3
NSCI 100	Introduction to Physical Science	3
	or other biological and physical sciences lecture course	
HIST 125	Technological Transformations	3
	or other arts and humanities/historical perspective course (discipline must differ from other humanities course)	
◆ CMIT 265	Fundamentals of Networking	3
COMM 202	Media and Society	3
	or other communication, writing, or speech course	

Additional Required Courses *(to be taken after introductory and foundation courses)*

WRTG 393	Advanced Technical Writing	3
	or other upper-level advanced writing course	
◆ CCJS 321	Digital Forensics in the Criminal Justice System	3
◆ CSIA 303	Foundations of Information System Security	3
◆ CSIA 412	Security Policy Analysis	3
◆ CSIA 413	Security Policy Implementation	3
◆ CMIT 320	Network Security	3
◆ CMIT 425	Advanced Information Systems Security	3
	or other supplemental major course	
◆ CSIA 459	Evaluating Emerging Technologies	3
	or other supplemental major course	

Capstone Course for Major *(to be taken in the last 15 credits)*

| ◆ CSIA 485 | Practical Applications in Cybersecurity Management | 3 |

Minor and/or Elective Courses *(to be taken in the last 60 credits along with required major courses)* — 46

Recommended Minors

Accounting, computer science, homeland security, political science, or terrorism and critical infrastructure

Recommended Electives *(for qualified students planning graduate study in cybersecurity or cybersecurity policy at UMUC; students should note prerequisites)*

CSEC 620	Human Aspects in Cybersecurity: Ethics, Legal Issues, and Psychology	
CSEC 630	Prevention and Protection Strategies	
or CSEC 635	National Cybersecurity Policy and Law	

Total credits for BS in Cybersecurity — **120**

Minor in Cybersecurity

The cybersecurity minor complements the skills the student gains in his or her major discipline by providing a study of the principles, issues, and technologies pertinent to the field of cybersecurity.

Requirements for the Minor

A minor in cybersecurity requires the completion of 15 credits of coursework in cybersecurity. All courses allowable for the major 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, students should refer to their major and pp. 8–9.

BACHELOR'S DEGREE CURRICULA

Digital Media and Web Technology

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

Major in Digital Media and Web Technology

The digital media and web technology major is designed to help prepare students for a career in the field of digital design. The flexible program of study allows students to specialize in web technology, motion graphics, or digital design, as well as integrate courses from multiple disciplines to meet career interests and educational goals. The program offers hands-on experience in creating digital works using industry-standard software. The curriculum covers the theories, technologies, techniques, and best practices that govern the effective design of interactive, immersive, and engaging digital media across multiple delivery platforms. The major prepares students to work in areas such as web design, motion graphics, multimedia, animation, and graphic design.

Intended Program Outcomes

The student who graduates with a major in digital media and web technology should be able 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 sound techniques for scripting and programming.
- Apply relevant theories, practices, and principles effectively when designing and developing works of digital media.

Degree Requirements

A degree with a major in digital media and web technology requires the successful completion of 120 credits of coursework, including 30 credits for the major; 41 credits in general education requirements; and 49 credits in the minor, electives, and other degree requirements. At least 15 credits in the major must be earned in upper-level courses (numbered 300 or above).

REQUIREMENTS FOR THE DIGITAL MEDIA AND WEB TECHNOLOGY MAJOR

Coursework for a major in digital media and web technology includes the following:

- Required foundation courses (6 credits): CMST 290 and 295
- Core course sequence (6 credits): CMST 385–386 (web technologies), CMST 341–342 (motion graphics), or CMST 310–311 (digital design)
- Supplemental major courses (15 credits): Chosen from any CMST, CMIS, CMIT, CMSC, CSIA, IFSM, and SDEV courses (Note: Taking courses within a single topic area—web technologies, motion graphics, or digital design—is highly recommended.)
- Required capstone course (3 credits): CMST 495

RECOMMENDED SEQUENCE

The following course sequence will fulfill all the requirements for the BS in Digital Media and Web Technology. Coursework for the major is indicated by ◆. Since some recommended courses fulfill more than one requirement, substituting courses for those listed may make it necessary to take additional courses to meet degree requirements. Students should consult an advisor whenever taking advantage of other options. Information on alternate courses (where allowable) to fulfill general education requirements (in communications, arts and humanities, behavioral and social sciences, biological and physical sciences, mathematics, and interdisciplinary issues) may be found on p. 8.

Digital Media and Web Technology Degree Courses		Credits
First Courses *(to be taken within the first 18 credits)*		
Note: Placement tests are required for math and writing courses.		
LIBS 150	Introduction to Research	1
WRTG 101	Introduction to Writing	3
or WRTG 101S	Introduction to Writing	
MATH 106	Finite Mathematics	3
	or a higher-level math course	
Introductory Courses *(to be taken within the first 30 credits)*		
HUMN 100	Introduction to Humanities	3
	or other arts and humanities course	
IFSM 201	Concepts and Applications of Information Technology	3
or CMST 301	Digital Media and Society	
BIOL 103	Introduction to Biology	4
	or other biological and physical sciences lecture and laboratory course(s)	
CMIS 102	Introduction to Problem Solving and Algorithm Design	3
	or other computing course	

| ECON 103 | Economics in the Information Age *or other behavioral and social sciences course* | 3 |
| WRTG 293 | Introduction to Professional Writing *or other writing course* | 3 |

Foundation Courses *(to be taken within the first 60 credits)*

BEHS 103	Technology in Contemporary Society *or other behavioral and social sciences course (discipline must differ from first)*	3
◆ CMST 295	Fundamentals of Digital Media	3
NSCI 100	Introduction to Physical Science *or other biological and physical sciences lecture course*	3
HIST 125	Technological Transformations *or other arts and humanities/historical perspective course (discipline must differ from other humanities course)*	3
◆ CMST 290	Introduction to Interactive Design	3
COMM 202	Media and Society *or other communication, writing, or speech course*	3

Additional Required Courses *(to be taken after introductory and foundation courses)*

WRTG 393	Advanced Technical Writing *or other upper-level advanced writing course*	3
◆ CMST 385	Principles of Web Design and Technology I	3
or CMST 341	Principles of Multimedia I	
or CMST 310	Fundamentals of Electronic Publishing	
◆ CMST 386	Principles of Web Design and Technology II	3
or CMST 342	Principles of Multimedia II	
or CMST 311	Advanced Electronic Publishing	
◆ CMST 306	Introduction to Visual Basic .NET Programming *or other supplemental major course*	3
◆ CMST 388	Fundamentals of JavaScript *or other supplemental major course*	3
◆ CMST 460	Web Application Development Using ColdFusion *or other supplemental major course*	3
◆ CMST 463	Web Application Development Using PHP/MySQL *or other supplemental major course*	3
◆ CMST 450	Web Development Using XML *or other supplemental major course*	3

Capstone Course for Major *(to be taken in the last 9 credits)*

| ◆ CMST 495 | Current Trends and Projects in Digital Media and Web Technology | 3 |

Minor and/or Elective Courses *(to be taken in the last 60 credits along with required major courses)* | | 49 |

Recommended Minor

Business administration

Recommended Electives

CMIS 485	Web Database Development
GRCO 230	Typography and Layout
GRCO 354	Digital Media

Total credits for BS in Digital Media and Web Technology **120**

Minor in Digital Media and Web Technology

The digital media and web technology minor complements the skills the student gains in his or her major discipline by providing a study of the principles, best practices, and technologies that govern the design of digital media.

Requirements for the Minor

A minor in digital media and web technology requires the completion of 15 credits of coursework in computer studies. Students 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, students should refer to their major and pp. 8–9.

BACHELOR'S DEGREE CURRICULA

Diversity Awareness

Students may seek an academic minor in diversity awareness.

Minor in Diversity Awareness

The diversity awareness minor complements the skills the student gains in his or her 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.

Requirements for the Minor

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
BMGT 312	Gender Issues in Business
GERO 311	Gender and Aging
GERO 327	Ethnicity and Aging
PSYC 338	Psychology of Gender
PSYC 354	Cross-Cultural Psychology
PSYC 357	Adulthood and Aging
SOCY 325	The Sociology of Gender
SOCY 423	Minorities in the United States
SOCY 424	Race and Ethnic Relations
SOCY 426	Sociology of Religion
SPCH 324	Communication and Gender
SPCH 482	Intercultural Communication

It is recommended that students take BEHS 220 as the first course in the minor (if they 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, students should refer to their major and pp. 8–9.

East Asian Studies

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

Major in East Asian Studies

The East Asian studies major provides an interdisciplinary overview of the history, economics, politics, culture, and languages of the East Asian region, including China, Korea, and Japan. It examines the region's rich past and continuing contributions to the global community. The curriculum emphasizes an understanding of East Asia based on both expanded cultural awareness and scholarly analysis in multiple disciplines. Students are provided with background knowledge that both enriches their appreciation of the area and helps prepare them for a range of careers that require a broad knowledge of the region and accurate understanding of the culture.

Intended Program Outcomes

The student who graduates with a major in East Asian studies should be able to

- Interpret, communicate, educate, and advise others based on understanding, research, and analysis of the social, historical, and cultural contexts of East Asia.

- Use knowledge of East Asia to identify, create, facilitate, and promote opportunities for interaction and cooperation between Asia and the global community, as well as to mediate and negotiate between East Asians and others.

- Apply knowledge of East Asian diversity, values, and expectations to perform in a culturally appropriate way in personal and professional settings.

- Communicate in both written and spoken form in an East Asian language, integrating interpersonal skills and cultural knowledge.

Degree Requirements

A degree with a major in East Asian studies requires the successful completion of 120 credits of coursework, including 30 credits for the major; 41 credits in general education requirements; and 49 credits in the minor, electives, and other degree requirements. At least 15 credits in the major must be earned in upper-level courses (numbered 300 or above).

REQUIREMENTS FOR THE EAST ASIAN STUDIES MAJOR

Coursework for a major in East Asian studies includes the following:

- Required foundation courses (6 credits): ASTD 284 and 285
- East Asian language sequence (9 credits): Sequential courses in a single language (primarily Chinese, Japanese, or Korean)—e.g., CHIN 111, 112, and 114
- Required intercultural communication course (3 credits): SPCH 482
- Supplemental major courses (9 credits): Chosen from ANTH 417; PHIL 348; or any upper-level ASTD, JAPN, KORN, Asian HIST, or Asian GVPT courses
- Required capstone course (3 credits): ASTD 485

RECOMMENDED SEQUENCE

The following course sequence will fulfill all the requirements for the BA in East Asian Studies. Coursework for the major is indicated by ◆. Since some recommended courses fulfill more than one requirement, substituting courses for those listed may make it necessary to take additional courses to meet degree requirements. Students should consult an advisor whenever taking advantage of other options. Information on alternate courses (where allowable) to fulfill general education requirements (in communications, arts and humanities, behavioral and social sciences, biological and physical sciences, mathematics, and interdisciplinary issues) may be found on p. 8.

East Asian Studies Degree Courses		Credits
First Courses *(to be taken within the first 18 credits)*		
Note: Placement tests are required for math and writing courses.		
LIBS 150	Introduction to Research	1
WRTG 101	Introduction to Writing	3
or WRTG 101S	Introduction to Writing	
MATH 106	Finite Mathematics	3
	or a higher-level math course	
Introductory Courses *(to be taken within the first 30 credits)*		
HUMN 100	Introduction to Humanities	3
	or other arts and humanities course	
BIOL 103	Introduction to Biology	4
	or other biological and physical sciences lecture and laboratory course(s)	
WRTG 293	Introduction to Professional Writing	3
	or other writing course	
◆ ASTD 284	Foundation of East Asian Civilization	3
ECON 103	Economics in the Information Age	3
	or other behavioral and social sciences course	
IFSM 201	Concepts and Applications of Information Technology	3
or CMST 301	Digital Media and Society	

Foundation Courses *(to be taken within the first 60 credits)*		
◆ JAPN 111	Elementary Japanese I	3
or CHIN 111	Elementary Chinese I	
	or other first East Asian language course for the major	
BEHS 103	Technology in Contemporary Society	3
	or other behavioral and social sciences course (discipline must differ from first)	
◆ ASTD 285	Introduction to Modern East Asia	3
NSCI 100	Introduction to Physical Science	3
	or other biological and physical sciences lecture course	
HIST 125	Technological Transformations	3
	or other arts and humanities/historical perspective course (discipline must differ from other humanities course)	
◆ JAPN 112	Elementary Japanese II	3
or CHIN 112	Elementary Chinese II	
	or other second East Asian language course for the major	
CMIS 111	Social Networking and Cybersecurity Best Practices	3
	or other computing course	
COMM 202	Media and Society	3
	or other communication, writing, or speech course	
◆ JAPN 114	Elementary Japanese III	3
or CHIN 114	Elementary Chinese III	
	or other third East Asian language course for the major	
Additional Required Courses *(to be taken after introductory and foundation courses)*		
WRTG 391	Advanced Research Writing	3
	or other upper-level advanced writing course	
◆ PHIL 348	Religions of the East	3
	or other supplemental major course	
◆ HIST 481	History of China from 1839 to 1997	3
	or other supplemental major course	
◆ HIST 483	History of Japan Since 1800	3
	or other supplemental major course	
◆ SPCH 482	Intercultural Communication	3
Capstone Course for Major *(to be taken in the last 15 credits)*		
◆ ASTD 485	Issues in East Asian Studies	3
Minor and/or Elective Courses *(to be taken in the last 60 credits along with required major courses)*		49
Recommended Minors		
Cybersecurity, homeland security, accounting, or any business-related minor.		
Total credits for BA in East Asian Studies		**120**

BACHELOR'S DEGREE CURRICULA

Minor in East Asian Studies

The East Asian studies minor complements the skills the student gains in his or her major discipline by providing an interdisciplinary study of the cultural, historical, political, and contemporary business reality of the Asian/Pacific world.

Requirements for the Minor

A minor in East Asian studies requires the completion of 15 credits of coursework in East Asian studies, which must include ASTD 284 and 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, students should refer to their major and pp. 8–9.

Economics

Students may seek an academic minor in economics.

Minor in Economics

The economics minor complements the skills the student gains in his or her 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.

Requirements for the Minor

A minor in economics requires the completion of 15 credits in economics. All ECON courses apply. Students should take ECON 201 and 203 as the first courses in the minor (if they 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, students should refer to their major and pp. 8–9.

Emergency Management

Students may seek an academic minor in emergency management.

Minor in Emergency Management

The emergency management curriculum complements the skills the student gains in his or her major discipline by providing knowledge of emergency management, including disaster planning and operations and allocation of limited resources.

An articulation agreement between UMUC's Undergraduate School and Graduate School allows eligible students who complete their undergraduate degree at UMUC with a minor in emergency management to reduce their total coursework for the graduate degree by 6 credits (two courses) and complete both degrees with a total of 150 credits of coursework. More information is available in the graduate catalog.

Requirements for the Minor

A minor in emergency management requires the completion of 15 credits of coursework in emergency management. All EMGT courses apply. It is recommended that students take EMGT 302 or EMGT 304 as the first course in the minor (if they 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, students should refer to their major and pp. 8–9.

English

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

Major in English

The English major helps provide students with broad cultural literacy, as well as the analytical, writing, and critical thinking skills for successful professional work and graduate study. Graduates with an English degree may pursue careers in business, education, law, the military, creative and professional writing, journalism, marketing, public relations, administration, and management, as well as advanced degrees in secondary teaching, literature, or related fields.

An articulation agreement between UMUC's Undergraduate School and Graduate School allows eligible students who complete their undergraduate degree at UMUC with a major in English to reduce their total coursework for the Master of Arts in Teaching by 12 credits (two courses) and complete both degrees with a total of 138 credits of coursework. More information is available in the graduate catalog.

Intended Program Outcomes

The student who graduates with a major in English should be able to

- Interpret literature and apply language in a thoughtful and articulate way in order to reflect on the human condition in today's world.
- Apply models from literature that reflect diversity and cultural competence to promote fair and inclusive interactions in the workplace and the larger society.
- Apply models from literature to ethical leadership and strategic management in for-profit and not-for-profit organizations.
- Access, research, and analyze information using current technologies and library resources to accomplish professional objectives.
- Create professional written and oral communications for specific purposes and provide feedback on grammatical and stylistic conventions.

Degree Requirements

A degree with a major in English requires the successful completion of 120 credits of coursework, including 33 credits for the major; 41 credits in general education requirements; and 46 credits in the minor, electives, and other degree requirements. At least 17 credits in the major must be earned in upper-level courses (numbered 300 or above).

REQUIREMENTS FOR THE ENGLISH MAJOR

Coursework for a major in English includes the following:

- Required foundation courses (6 credits): ENGL 240 and 303
- Historical background courses (9 credits): Chosen from ENGL 309, 310, 311, 312, and 386
- Period course (3 credits): ENGL 345, 425, 430, 433, 441, or 457
- Major authors courses (9 credits): Chosen from ENGL 363, 364, 406, 434, 439, and 454
- Supplemental major course (3 credits): Any ENGL course or WRTG 387
- Required capstone course (3 credits): ENGL 495

RECOMMENDED SEQUENCE

The following course sequence will fulfill all the requirements for the BA in English. Coursework for the major is indicated by ◆. Since some recommended courses fulfill more than one requirement, substituting courses for those listed may make it necessary to take additional courses to meet degree requirements. Students should consult an advisor whenever taking advantage of other options. Information on alternate courses (where allowable) to fulfill general education requirements (in communications, arts and humanities, behavioral and social sciences, biological and physical sciences, mathematics, and interdisciplinary issues) may be found on p. 8.

English Degree Courses		Credits
First Courses *(to be taken within the first 18 credits)*		
Note: Placement tests are required for math and writing courses.		
LIBS 150	Introduction to Research	1
WRTG 101	Introduction to Writing	3
or WRTG 101S	Introduction to Writing	
MATH 106	Finite Mathematics	3
	or a higher-level math course	
Introductory Courses *(to be taken within the first 30 credits)*		
HUMN 100	Introduction to Humanities	3
	or other arts and humanities course	
BIOL 103	Introduction to Biology	4
	or other biological and physical sciences lecture and laboratory course(s)	
WRTG 293	Introduction to Professional Writing	3
	or other writing course	
ECON 103	Economics in the Information Age	3
	or other behavioral and social sciences course	
IFSM 201	Concepts and Applications of Information Technology	3
or CMST 301	Digital Media and Society	

Foundation Courses *(to be taken within the first 60 credits)*

BEHS 103	Technology in Contemporary Society *or other behavioral and social sciences course* *(discipline must differ from first)*	3
NSCI 100	Introduction to Physical Science *or other biological and physical sciences lecture course*	3
HIST 125	Technological Transformations *or other arts and humanities/historical perspective course* *(discipline must differ from other humanities course)*	3
◆ ENGL 240	Introduction to Fiction, Poetry, and Drama	3
CMIS 111	Social Networking and Cybersecurity Best Practices *or other computing course*	3
COMM 202	Media and Society *or other communication, writing, or speech course*	3
◆ ENGL 303	Critical Approaches to Literature	3

Additional Required Courses *(to be taken after introductory and foundation courses)*

WRTG 391	Advanced Research Writing *or other upper-level advanced writing course*	3
◆ ENGL 309	Medieval Literature *or other historical background course for the major*	3
◆ ENGL 310	Renaissance Literature *or other historical background course for the major*	3
◆ ENGL 311	17th- and 18th-Century British Literature *or other historical background course for the major*	3
◆ ENGL 425	20th-Century British Literature *or other period course for the major*	3
◆ ENGL 364	African American Authors from 1900 to the Present *or other major authors course for the major*	3
◆ ENGL 406	Seminar in Shakespeare Studies *or other major authors course for the major*	3
◆ ENGL 454	Modern World Drama *or other major authors course for the major*	3
◆ ENGL 481	Seminar in Creative Writing: Fiction and Creative Nonfiction *or other supplemental major course*	3

Capstone Course for Major *(to be taken in the last 15 credits)*

◆ ENGL 495	Advanced Seminar in English Language, Literature, and Writing	3

Minor and/or Elective Courses *(to be taken in the last 60 credits along with required major courses)* — 46

Recommended Electives *(for qualified students who plan to enter the MAT program at UMUC; students should note prerequisites and consult an advisor)*

EDTP 600	Professional Fundamentals of Teaching and Learning	
EDTP 635	Adolescent Development and Learning Needs	

Total credits for BA in English — **120**

Minor in English

The English minor complements the skills the student gains in his or her major discipline by providing exposure to literary analysis, critical thinking and reading, and the study of the relationship of literature to contemporary intellectual issues.

Requirements for the Minor

A minor in English requires the completion of 15 credits of English coursework. All ENGL courses apply. It is recommended that students take ENGL 240 and 303 as the first courses in the minor (if they 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, students should refer to their major and pp. 8–9.

Environmental Management

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

Major in Environmental Management

The major in environmental management helps prepare students to plan, implement, and control all facets of environmental management. Focus is on the knowledge and skills students need to be effective environmental managers. The curriculum provides an interdisciplinary approach to environmental management that includes management of air, land, and water; pollution control; policies; regulations; and environmental health and safety. Graduates may pursue careers in the fields of public safety, occupational health, pollution remediation, hazard control, risk management, risk assessment, and environmental health policy and regulation.

Intended Program Outcomes

The student who graduates with a major in environmental management should be able to

• Identify and evaluate current and future air, water, land, and energy resource needs to make appropriate recommendations and advocate regarding environmentally sustainable solutions and practices.

- Ensure compliance with safety, health, and environmental laws, regulations, and policies for the protection of humans and the environment in every activity and aspect of an environmental management plan, procedure, and operation.

- Apply scientific knowledge and principles, quantitative methods, and technology tools to think critically and solve complex environmental management problems in a variety of settings.

- Communicate orally and in writing on environmental issues, principles, and practices in a clear, well-organized manner that effectively persuades, informs, and clarifies ideas, information, plans, and procedures to stakeholders and other interested parties.

- Develop and implement management plans that incorporate scientific principles and comply with environmental laws and ethical principles.

- Evaluate and use information obtained through field inspections, monitoring, and sampling to assess the safety of environments.

Degree Requirements

A degree with a major in environmental management requires the successful completion of 120 credits of coursework, including 30 credits for the major; 41 credits in general education requirements; and 49 credits in the minor, electives, and other degree requirements. At least 15 credits in the major must be earned in upper-level courses (numbered 300 or above).

REQUIREMENTS FOR THE ENVIRONMENTAL MANAGEMENT MAJOR

Coursework for a major in environmental management includes the following:

- Core courses (18 credits): ENMT 301, 303, 321, 322 (or 405), 340, and 390
- Statistics course (3 credits): STAT 200 or STAT 230
- Supplemental major courses (6 credits): Any ENMT courses
- Required capstone course (3 credits): ENMT 495
- Required related courses (9 credits), which may be applied anywhere in the degree: BIOL 301, CHEM 297, and MATH 115 (or MATH 107–108)

RECOMMENDED SEQUENCE

The following course sequence will fulfill all the requirements for the BS in Environmental Management. Coursework for the major is indicated by ◆. Since some recommended courses fulfill more than one requirement, substituting courses for those listed may make it necessary to take additional courses to meet degree requirements. Students should consult an advisor whenever taking advantage of other options. Information on alternate courses

(where allowable) to fulfill general education requirements (in communications, arts and humanities, behavioral and social sciences, biological and physical sciences, mathematics, and interdisciplinary issues) may be found on p. 8.

Environmental Management Degree Courses		Credits
First Courses *(to be taken within the first 18 credits)*		
Note: Placement tests are required for math and writing courses.		
LIBS 150	Introduction to Research	1
WRTG 101	Introduction to Writing	3
or WRTG 101S	Introduction to Writing	
MATH 115	Pre-Calculus	3
or both MATH 107	College Algebra	
and MATH 108	Trigonometry and Analytical Geometry *(related requirement for the major; prerequisite to major courses)*	
Introductory Courses *(to be taken within the first 30 credits)*		
BIOL 103	Introduction to Biology *or other biological and physical sciences lecture and laboratory course(s)*	4
IFSM 201	Concepts and Applications of Information Technology	3
or CMST 301	Digital Media and Society	
ECON 103	Economics in the Information Age *or other behavioral and social sciences course*	3
CHEM 297	Environmental Chemistry *(related requirement for the major and prerequisite to major courses; fulfills the biological and physical sciences lecture requirement)*	3
WRTG 293	Introduction to Professional Writing *or other writing course*	3
◆ STAT 230	Introductory Business Statistics	3
or STAT 200	Introduction to Statistics	
HUMN 100	Introduction to Humanities *or other arts and humanities course*	3
Foundation Courses *(to be taken within the first 60 credits)*		
BEHS 103	Technology in Contemporary Society *or other behavioral and social sciences course (discipline must differ from first)*	3
HIST 125	Technological Transformations *or other arts and humanities/historical perspective course (discipline must differ from other humanities course)*	3
COMM 202	Media and Society *or other communication, writing, or speech course*	3
CMIS 111	Social Networking and Cybersecurity Best Practices *or other computing course*	3
BIOL 301	Human Health and Disease *(related requirement for the major and prerequisite to major courses)*	3
◆ ENMT 301	Environment and Ecosystems Management	3

Additional Required Courses *(to be taken after introductory and foundation courses)*

WRTG 394	Advanced Business Writing *or other upper-level advanced writing course*	3
◆ ENMT 303	Environmental Regulations and Policy	3
◆ ENMT 321	Environmental Health	3
◆ ENMT 322 *or* ENMT 405	Occupational Health and Safety Pollution Prevention Strategies	3
◆ ENMT 340	Environmental Technology	3
◆ ENMT 390	Environmental Health Risk Assessment	3
◆ ENMT 315	Environmental Audits and Permits *or other supplemental major course*	3
◆ ENMT 380	Air Quality Management *or other supplemental major course*	3

Capstone Course for Major *(to be taken in the last 15 credits)*

◆ ENMT 495	Global Environmental Management Issues	3

Minor and/or Elective Courses *(to be taken in the last 60 credits along with required major courses)* **46**

Recommended Elective

WRTG 490	Writing for Managers	

Total credits for BS in Environmental Management **120**

Minor in Environmental Management

The environmental management minor complements the skills the student gains in his or her major discipline by providing a study of interdisciplinary and multimedia (air, water, land) environmental management and related issues on a fundamental practical and global level.

Requirements for the Minor

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 students take ENMT 301 as the first course in the minor (if they 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, students should refer to their major and pp. 8–9.

Finance

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

Major in Finance

The finance major helps provide the knowledge of financial concepts and analytical skills needed to balance finance theory and practical application. It combines a foundation in the principles of business, economics, and accounting with an in-depth focus on issues and knowledge in finance and financial management. The curriculum covers business finance, financial management, investments, and security analysis and valuation. Graduates may pursue a variety of careers in corporate and government financial management, investments, portfolio analysis and management, financial analysis, financial planning, banking, risk management, and insurance.

Intended Program Outcomes

The student who graduates with a major in finance should be able to

- Prepare, analyze, and interpret financial information and apply financial and economic theories to make sound business decisions.
- Apply basic principles of security markets to effectively 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.
- Identify required information and 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.

Degree Requirements

A degree with a major in finance requires the successful completion of 120 credits of coursework, including 36 credits for the major; 41 credits in general education requirements; and 43 credits in the minor, electives, and other degree requirements. At least 18 credits in the major must be earned in upper-level courses (numbered 300 or above).

REQUIREMENTS FOR THE FINANCE MAJOR

Coursework for a major in finance includes the following:

- Foundation courses (12 credits): ACCT 220 and 221, STAT 230 (or STAT 200), and BMGT 364
- Required core courses (6 credits): FINC 330 and 340
- Supplemental major courses (15 credits): Chosen from any FINC courses (except FINC 321 and 322) and ECON 430
- Required capstone course (3 credits): FINC 495
- Required related courses (9 credits), which may be applied anywhere in the degree: IFSM 300 and ECON 201 and 203

RECOMMENDED SEQUENCE

The following course sequence will fulfill all the requirements for the BS in Finance. Coursework for the major is indicated by ◆. Since some recommended courses fulfill more than one requirement, substituting courses for those listed may make it necessary to take additional courses to meet degree requirements. Students should consult an advisor whenever taking advantage of other options. Information on alternate courses (where allowable) to fulfill general education requirements (in communications, arts and humanities, behavioral and social sciences, biological and physical sciences, mathematics, and interdisciplinary issues) may be found on p. 8.

Finance Degree Courses		Credits

First Courses *(to be taken within the first 18 credits)*
Note: Placement tests are required for math and writing courses.

LIBS 150	Introduction to Research	1
WRTG 101	Introduction to Writing	3
or WRTG 101S	Introduction to Writing	
MATH 106	Finite Mathematics *or a higher-level math course*	3
BMGT 110	Introduction to Business and Management *(strongly recommended elective for students with no prior business experience)*	3

Introductory Courses *(to be taken within the first 30 credits)*

◆ ACCT 220	Principles of Accounting I	3
ECON 201	Principles of Macroeconomics *(related requirement for the major; also fulfills the first behavioral and social sciences requirement)*	3
BIOL 103	Introduction to Biology *or other biological and physical sciences lecture and laboratory course(s)*	4
WRTG 293	Introduction to Professional Writing *or other writing course*	3
IFSM 201	Concepts and Applications of Information Technology *(prerequisite to later course)*	3

HUMN 100	Introduction to Humanities *or other arts and humanities course*	3

Foundation Courses *(to be taken within the first 60 credits)*

◆ STAT 230	Introductory Business Statistics	3
or STAT 200	Introduction to Statistics	
BEHS 103	Technology in Contemporary Society *or other behavioral and social sciences course (discipline must differ from first)*	3
◆ ACCT 221	Principles of Accounting II	3
NSCI 100	Introduction to Physical Science *or other biological and physical sciences lecture course*	3
ECON 203	Principles of Microeconomics *(related requirement for the major)*	3
HIST 125	Technological Transformations *or other arts and humanities/historical perspective course (discipline must differ from other humanities course)*	3
COMM 202	Media and Society *or other communication, writing, or speech course*	3
IFSM 300	Information Systems in Organizations *(related requirement for the major; also fulfills the computing requirement)*	3
◆ BMGT 364	Management and Organization Theory	3

Additional Required Courses *(to be taken after introductory and foundation courses)*

◆ FINC 330	Business Finance	3
◆ FINC 340	Investments	3
WRTG 394	Advanced Business Writing *or other upper-level advanced writing course*	3
◆ ECON 430	Money and Banking *or other supplemental major course*	3
◆ FINC 430	Financial Management *or other supplemental major course*	3
◆ FINC 440	Security Analysis and Valuation *or other supplemental major course*	3
◆ FINC 421	Financial Analysis *or other supplemental major course*	3
◆ FINC 460	International Finance *or other supplemental major course*	3

Capstone Course for Major *(to be taken in the last 15 credits)*

◆ FINC 495	Contemporary Issues in Finance Practice	3

Minor and/or Elective Courses *(to be taken in the last 60 credits along with required major courses)* | | 37 |

Recommended Minors
Human resource management, marketing, or other business-related minor

Recommended Electives

FINC 351	Risk Management	
FINC 441	Derivatives	

| **Total credits for BS in Finance** | | **120** |

Minor in Finance

The finance minor complements the skills the student gains in his or her major discipline by providing a study of the institutions, theory, and practice associated with the allocation of financial resources within the private sector.

Requirements for the Minor

A minor in finance requires the completion of 15 credits of coursework in finance. All FINC courses apply. It is recommended that students take FINC 330 and 340 as the first courses in the minor (if they 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, students should refer to their major and pp. 8–9.

Fire Service Administration

Students may seek an academic minor in fire service administration.

Minor in Fire Service Administration

The fire service administration minor complements the skills the student gains in his or her 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.

Requirements for the Minor

A minor in fire service administration requires the completion of 15 credits of coursework in fire service administration. All FSCN courses apply. It is recommended that students take FSCN 302 as the first course for the minor (if they 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, students should refer to their major and pp. 8–9.

Forensics

Students may seek an academic minor in forensics. A related academic major is available in investigative forensics (p. 53).

Minor in Forensics

The minor in forensics complements the skills the student gains in his or her 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.

Requirements for the Minor

A minor in forensics requires the completion of 15 credits of coursework in forensics, chosen from those listed in the requirements for the major in investigative forensics. It is recommended that students take CCJS 101 and 234 as the first courses for the minor (if they 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, students should refer to their major and pp. 8–9.

Fraud Investigation

Students may seek an academic minor in fraud investigation.

Minor in Fraud Investigation

The minor in fraud investigation complements the skills the student gains in his or her major discipline by offering an interdisciplinary approach to the investigation of possible fraud. It is designed to enhance the student's understanding of fraud, including motives, rationalization, and opportunity (the fraud triangle) and provide a foundation for response to fraud as a crime, including detection, evidence collection, and criminal case preparation.

Requirements for the Minor

A minor in fraud investigation requires the completion of 15 credits of coursework in accounting and criminal justice, as follows.

Students must complete two of the following criminal justice–related courses:

CCJS 234	Criminal Procedure and Evidence
CCJS 341	Criminal Investigation
CCJS 390	Cyber Crime and Security
CCJS 421	Principles of Digital Forensics
CCJS 453	White-Collar Crime
CCJS 486A	Workplace Learning in Criminal Justice

Students must complete one of the following accounting-related courses:

ACCT 320	Fraud Detection and Deterrence
ACCT 438	Fraud and Forensic Accounting
ACCT 433	Audits and Control of Information Technology
ACCT 436	Internal Auditing
ACCT 486A	Workplace Learning in Accounting

Students must complete another course from either of the two previous lists.

Students must also complete the following course:

ACCT 440	Forensic and Investigative Accounting *(students should note course prerequisites)*

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, students should refer to their major and pp. 8–9.

General Studies

The general studies major is available only to active-duty military personnel and certain others who conform to specific stipulations. Students outside UMUC Europe and UMUC Asia should not select this major.

Major in General Studies

The general studies major allows students to draw from various disciplines that provide a body of knowledge appropriate to an identified area of interest (for example, an aspect of culture, a historical period, or a geographical location). The interdisciplinary approach emphasizes analysis and synthesis of diverse theory and practice.

Intended Program Outcomes

The student who graduates with a major in general studies should be able to

- Communicate effectively, both orally and in writing, with individuals and groups to convey ideas and knowledge and to establish professional competency.
- Develop the skills and competencies required for sustainable professional success.
- Use appropriate resources to research and critically analyze real-world situations.
- Cultivate an awareness of one's changing relationship to diverse social, historical, and cultural contexts.
- Understand and apply key concepts from chosen disciplines.

Degree Requirements

A degree with a major in general studies requires the successful completion of 120 credits of coursework, including 30 credits for the major; 41 credits in general education requirements; and 49 credits in the minor, electives, and other degree requirements. At least 15 credits in the major must be earned in upper-level courses (numbered 300 or above).

REQUIREMENTS FOR THE GENERAL STUDIES MAJOR

Coursework for the major in general studies includes either 15 credits in each of two different disciplines or specific coursework for a particular curriculum as defined by UMUC. The general studies major requires prior approval. Unless the curriculum has already been defined by UMUC, students must submit a formal proposal explaining the focus and intended learning outcomes of the proposed course of study and identifying specific courses to fulfill those learning outcomes. Students should consult an advisor about eligibility for the major and about the requirements and procedure for submitting a proposal.

BACHELOR'S DEGREE CURRICULA

Gerontology and Aging Services

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

Major in Gerontology and Aging Services

The major in gerontology and aging services helps prepare students to implement and manage health and human service programs in gerontology and aging services. It combines a foundation in the psychosocial and physiological aspects of aging with an understanding of programs, services, and policies related to aging and older adults. Graduates may pursue careers such as gerontological services or program manager, program and policy analyst, services developer, and housing or facilities manager.

Intended Program Outcomes

The student who graduates with a major in gerontology and aging services should be able to

- Access, interpret, and apply gerontological research findings related to biopsychosocial processes in the context of aging.
- Analyze the impact of sociological and cultural 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 interdisciplinary gerontological 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

A degree with a major in gerontology and aging services requires the successful completion of 120 credits of coursework, including 30 credits for the major; 41 credits in general education requirements; and 49 credits in the minor, electives, and other degree requirements. At least 15 credits in the major must be earned in upper-level courses (numbered 300 or above).

REQUIREMENTS FOR THE GERONTOLOGY AND AGING SERVICES MAJOR

Coursework for a major in gerontology and aging services includes the following:

- Foundation courses (9 credits): GERO 100, 220 (or PSYC 357), and 302 (or BIOL 307)

- Statistics course (3 credits): STAT 225 (or STAT 200 or STAT 230)
- Management courses (6 credits): GERO 301 (or HMGT 300) and 306
- Health-related course (3 credits): GERO 338, GERO 355, or BEHS 380
- Supplemental major courses (6 credits): Any GERO courses
- Required internship (3 credits): GERO 486A

RECOMMENDED SEQUENCE

The following course sequence will fulfill all the requirements for the BS in Gerontology and Aging Services. Coursework for the major is indicated by ◆. Since some recommended courses fulfill more than one requirement, substituting courses for those listed may make it necessary to take additional courses to meet degree requirements. Students should consult an advisor whenever taking advantage of other options. Information on alternate courses (where allowable) to fulfill general education requirements (in communications, arts and humanities, behavioral and social sciences, biological and physical sciences, mathematics, and interdisciplinary issues) may be found on p. 8.

Gerontology and Aging Services Degree Courses		Credits
First Courses *(to be taken within the first 18 credits)*		
Note: Placement tests are required for math and writing courses.		
LIBS 150	Introduction to Research	1
WRTG 101	Introduction to Writing	3
or WRTG 101S	Introduction to Writing	
MATH 106	Finite Mathematics	3
	or a higher-level math course	
Introductory Courses *(to be taken within the first 30 credits)*		
◆ GERO 100	Contemporary Issues in Aging	3
ECON 103	Economics in the Information Age	3
	or other behavioral and social sciences course	
BIOL 103	Introduction to Biology	4
	or other biological and physical sciences lecture and laboratory course(s)	
WRTG 293	Introduction to Professional Writing	3
	or other writing course	
IFSM 201	Concepts and Applications of Information Technology	3
or CMST 301	Digital Media and Society	
HUMN 100	Introduction to Humanities	3
	or other arts and humanities course	
Foundation Courses *(to be taken within the first 60 credits)*		
◆ GERO 220	Psychological Aspects of Aging	3
or PSYC 357	Adulthood and Aging	

◆ STAT 225	Introduction to Statistics for the Behavioral Sciences	3
or STAT 200	Introduction to Statistics	
or STAT 230	Introductory Business Statistics	
BEHS 103	Technology in Contemporary Society *or other behavioral and social sciences course (discipline must differ from first)*	3
NSCI 100	Introduction to Physical Science *or other biological and physical sciences lecture course*	3
HIST 125	Technological Transformations *or other arts and humanities/historical perspective course (discipline must differ from other humanities course)*	3
COMM 202	Media and Society *or other communication, writing, or speech course*	3
CMIS 111	Social Networking and Cybersecurity Best Practices *or other computing course*	3
◆ GERO 302	Health and Aging	3
or BIOL 307	The Biology of Aging	

Additional Required Courses *(to be taken after introductory and foundation courses)*

◆ GERO 301	Service/Program Management	3
or HMGT 300	Introduction to the U.S. Health Care Sector	
◆ GERO 306	Programs, Services, and Policies	3
WRTG 391	Advanced Research Writing *or other upper-level advanced writing course*	3
◆ GERO 338	Health Promotion in Older Adults *or other health-related course for the major*	3
◆ GERO 311	Gender and Aging	3
or GERO 410	Cross-Cultural Perspectives of Aging *or other supplemental major course*	
◆ GERO 327	Ethnicity and Aging *or other supplemental major course*	3

Internship for the Major *(to be taken within the last 30 credits)*

◆ GERO 486A	Workplace Learning in Gerontology and Aging Services	3

Minor and/or Elective Courses *(to be taken within the last 60 credits along with required major courses)* **49**

Recommended Elective

SPCH 482	Intercultural Communication	

Total credits for BS in Gerontology and Aging Services **120**

Minor in Gerontology and Aging Services

The gerontology and aging services minor complements the skills the student gains in his or her major discipline by examining aging from a multidisciplinary perspective that integrates biological, sociological, psychological, and historical perspectives. It provides the student with the opportunity to study complex processes and aspects of aging and the field of gerontology.

Requirements for the Minor

A minor in gerontology and aging services requires the completion of 15 credits of coursework in gerontology. Courses appropriate for the major in gerontology and aging services apply. It is recommended that students take GERO 100 and 220 (or PSYC 357) as the first courses in the minor (if they 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, students should refer to their major and pp. 8–9.

Graphic Communication

Students may seek an academic major in graphic communication.

Major in Graphic Communication

The major in graphic communication provides students with a multidisciplinary portfolio-intensive study of the skills and technology needed to compete in today's rapidly changing visual arts and communication environments. The curriculum combines training in graphic art and design and computer graphics with studies in communication, including business-oriented writing and publication. Graduates may pursue careers as graphic designers and related positions that require creative skills as well as an understanding of business communication.

Intended Program Outcomes

The student who graduates with a major in graphic communication should be able to

- Produce tangible and effective visual communications that solve design problems by applying principles of composition, layout, color theory, and context.
- Plan, design, and execute multifaceted interactive solutions such as user interfaces, motion graphics, mobile applications, and web designs.
- Gain a competitive edge in the market through professional presentation and practice, as reflected in the design portfolio.
- Use professional, analytical, collaborative, and technical design skills to support team goals, roles, and responsibilities.
- Define and direct creative strategy within the business environment by combining scope, messaging, and evaluation of success in an overarching design campaign and communicating with stakeholders about design goals.

Degree Requirements

A degree with a major in graphic communication requires the successful completion of 120 credits of coursework, including 33 credits for the major; 41 credits in general education requirements; and 46 credits in the minor, electives, and other degree requirements. At least 17 credits in the major must be earned in upper-level courses (numbered 300 or above).

REQUIREMENTS FOR THE GRAPHIC COMMUNICATION MAJOR

Coursework for a major in graphic communication includes the following:

- Required introductory courses (9 credits): ARTT 110 and 120 and GRCO 100

- Required foundation courses (6 credits): ARTT 210 and GRCO 230
- Required core courses (12 credits): GRCO 350, 354, 355, and 450
- Supplemental major course (3 credits): Any GRCO course
- Required capstone course (3 credits): GRCO 495

Note: Some coursework may require access to specific graphic design software. Students should review course descriptions for details.

RECOMMENDED SEQUENCE

The following course sequence will fulfill all the requirements for the BA in Graphic Communication. Coursework for the major is indicated by ◆. Since some recommended courses fulfill more than one requirement, substituting courses for those listed may make it necessary to take additional courses to meet degree requirements. Students should consult an advisor whenever taking advantage of other options. Information on alternate courses (where allowable) to fulfill general education requirements (in communications, arts and humanities, behavioral and social sciences, biological and physical sciences, mathematics, and interdisciplinary issues) may be found on p. 8.

Graphic Communication Degree Courses		Credits
First Courses *(to be taken within the first 18 credits)*		
Note: Placement tests are required for math and writing courses.		
LIBS 150	Introduction to Research	1
WRTG 101	Introduction to Writing	3
or WRTG 101S	Introduction to Writing	
MATH 106	Finite Mathematics	3
	or a higher-level math course	
◆ GRCO 100	Introduction to Graphic Communication	3
Introductory Courses *(to be taken within the first 30 credits)*		
HUMN 100	Introduction to Humanities	3
	or other arts and humanities course	
BIOL 103	Introduction to Biology	4
	or other biological and physical sciences lecture and laboratory course(s)	
ECON 103	Economics in the Information Age	3
	or other behavioral and social sciences course	
◆ ARTT 110	Introduction to Drawing	3
WRTG 293	Introduction to Professional Writing	3
	or other writing course	
IFSM 201	Concepts and Applications of Information Technology	3
or CMST 301	Digital Media and Society	

Foundation Courses *(to be taken within the first 60 credits)*

◆ ARTT 120	Design I: Arrangement and Color	3
BEHS 103	Technology in Contemporary Society	3
	or other behavioral and social sciences course	
	(discipline must differ from first)	
NSCI 100	Introduction to Physical Science	3
	or other biological and physical sciences lecture course	
◆ ARTT 210	Intermediate Drawing	3
HIST 125	Technological Transformations	3
	or other arts and humanities/historical perspective course	
	(discipline must differ from other humanities course)	
CMIS 111	Social Networking and Cybersecurity	
	Best Practices	3
	or other computing course	
COMM 202	Media and Society	3
	or other communication, writing, or speech course	
◆ GRCO 230	Typography and Layout	3

Additional Required Courses *(to be taken after introductory and foundation courses)*

◆ GRCO 350	Intermediate Graphic Communication:	
	Portfolio Development	3
WRTG 391	Advanced Research Writing	3
	or other upper-level advanced writing course	
◆ GRCO 354	Digital Media	3
◆ GRCO 355	Digital Media II: Time and Motion	3
◆ GRCO 450	Advanced Graphic Communication:	
	Professional Branding	3
◆ GRCO 458	Illustration	3
or GRCO 479	Motion Graphics	
	or other supplemental course for the major	

Capstone Course for Major *(to be taken in the last 15 credits)*

◆ GRCO 495	Graphic Communication Portfolio	3

Minor and/or Elective Courses *(to be taken in the last 60 credits along with required major courses)* — 46

Recommended Minors

Art, art history, or digital media and web technology

Recommended Electives

ARTT 220	Color Theory
ARTH 373	History of Western Art II
ARTH 375	History of Graphic Art
ARTH 388	Contemporary Art
JOUR 350	Photojournalism in the Digital Age
MRKT 310	Marketing Principles

Total credits for BA in Graphic Communication — **120**

Health Services Management

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

Major in Health Services Management

The major in health services management helps students develop the knowledge, skills, and competencies required for effective management and leadership in the changing health environment. The program is designed to prepare students to think comprehensively and strategically about health care trends and environments so that they have the tools to become leaders at the forefront of changes and innovations in this emerging field. The curriculum covers information systems, management and organization theory, economics, finance, law, ethics, policy, strategic planning, and leadership with an emphasis on their application to the health care field. Through elective coursework, students may focus their studies on health services for the aging, technology and data analysis in the health care environment, or management and leadership in specific types of health care organizations.

Intended Program Outcomes

The student who graduates with a major in health services management should be able to

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

Degree Requirements

A degree with a major in health services management requires the completion of 120 credits of coursework, including 36 credits for the major; 41 credits in general education requirements; and 43 credits in the minor, electives, and other degree requirements. At least 18 credits in the major must be earned in upper-level courses (numbered 300 or above).

BACHELOR'S DEGREE CURRICULA

REQUIREMENTS FOR THE HEALTH SERVICES MANAGEMENT MAJOR

Coursework for a major in health services management also includes the following:

- Required statistics course (3 credits): STAT 230
- Required core courses (21 credits): HMGT 300, 310, 320, 322, 372, and 400 and IFSM 305
- Supplemental major courses (9 credits): Chosen from any HMGT course; GERO 301, 302, and 342; and IFSM 405
- Required capstone course (3 credits): HMGT 495

RECOMMENDED SEQUENCE

The following course sequence will fulfill all the requirements for the BS in Health Services Management. Coursework for the major is indicated by ◆. Since some recommended courses fulfill more than one requirement, substituting courses for those listed may make it necessary to take additional courses to meet degree requirements. Students should consult an advisor whenever taking advantage of other options. Information on alternate courses (where allowable) to fulfill general education requirements (in communications, arts and humanities, behavioral and social sciences, biological and physical sciences, mathematics, and interdisciplinary issues) may be found on p. 8.

Health Services Management Degree Courses		Credits
First Courses *(to be taken within the first 18 credits)*		
Note: Placement tests are required for math and writing courses.		
LIBS 150	Introduction to Research	1
WRTG 101	Introduction to Writing	3
or WRTG 101S	Introduction to Writing	
MATH 106	Finite Mathematics *or a higher-level math course*	3
Introductory Courses *(to be taken within the first 30 credits)*		
ECON 103	Economics in the Information Age *or other behavioral and social sciences course*	3
BIOL 103	Introduction to Biology *or other biological and physical sciences lecture and laboratory course(s)*	4
WRTG 293	Introduction to Professional Writing *or other writing course*	3
IFSM 201	Concepts and Applications of Information Technology *(prerequisite to later course)*	3
HUMN 100	Introduction to Humanities *or other arts and humanities course*	3
Foundation Courses *(to be taken within the first 60 credits)*		
BEHS 103	Technology in Contemporary Society *or other behavioral and social sciences course (discipline must differ from first)*	3
◆ STAT 230	Introductory Business Statistics	3
NSCI 100	Introduction to Physical Science *or other biological and physical sciences lecture course*	3
◆ HMGT 300	Introduction to the U.S. Health Care Sector	3
HIST 125	Technological Transformations *or other arts and humanities/historical perspective course (discipline must differ from other humanities course)*	3
COMM 202	Media and Society *or other communication, writing, or speech course*	3
CMIS 111	Social Networking and Cybersecurity Best Practices *or other computing course*	3
◆ HMGT 320	Management in Health Care Organizations	3
Additional Required Courses *(to be taken after introductory and foundation courses)*		
◆ HMGT 400	Research and Data Analysis in Health Care	3
◆ HMGT 310	Health Care Policies	3
WRTG 394	Advanced Business Writing *or other upper-level advanced writing course*	3
◆ HMGT 372	Legal and Ethical Issues in Health Care	3
◆ HMGT 322	Health Care Financial Management	3
◆ IFSM 305	Information Systems in Health Care Organizations	3
◆ HMGT 335	Health Care Marketing *or other supplemental major course*	3
◆ HMGT 435	Health Care Economics *or other supplemental major course*	3
◆ HMGT 486A	Workplace Learning in Health Care Services Management *or other supplemental major course*	3
Capstone Course for Major *(to be taken in the last 15 credits)*		
◆ HMGT 495	Strategic Planning and Leadership in Health Care	3
Minor and/or Elective Courses *(to be taken in the last 60 credits along with required major courses)*		43
Total credits for BS in Health Services Management		**120**

Minor in Health Services Management

The minor in health services management complements the skills the student gains in his or her 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 students deal with the challenges of management and leadership in this dynamic field.

Requirements for the Minor

A minor in health services management requires the completion of 15 credits of coursework in health services management,

chosen from any HMGT courses and GERO 342. It is recommended that students take HMGT 300 as the first course in the minor (if they 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, students should refer to their major and pp. 8–9.

History

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

Major in History

The history major helps prepare students to read and analyze historical works with critical insight and appreciate the range and variety of resources, as well as demonstrate knowledge of the development and cultural diversity of their respective areas of study. Students may develop their research skills using libraries, archives, and online sources to acquire a sense of intellectual property and the responsibility of presenting and interpreting historical issues. They may also develop writing skills to clearly express their findings using the language of the discipline. The history major helps prepare students for graduate study in history and for careers in education, writing and publishing, journalism, law, public relations, business, government, and management.

An articulation agreement between UMUC's Undergraduate School and Graduate School allows eligible students who complete their undergraduate degree at UMUC with a major in history to reduce their total coursework for the Master of Arts in Teaching by 12 credits (two courses) and complete both degrees with a total of 138 credits of coursework. More information is available in the graduate catalog.

Intended Program Outcomes

The student who graduates with a major in history should be able to

- Organize and use primary and secondary sources for research, interpretation, and presentation of historical knowledge.
- Convey historical information by writing and speaking clearly and appropriately for different audiences and with an appreciation of diverse viewpoints.
- Engage in history as a moral and ethical practice, recognizing a diversity of backgrounds and perspectives.

- Cultivate historical habits of mind, apply historical precedents to contemporary developments, remain open to historical interpretation as an incomplete process, and develop self-reflection to mitigate bias.
- Demonstrate a chronological understanding of the different peoples, events, and cultures that have shaped human civilization.

Degree Requirements

A degree with a major in history requires the successful completion of 120 credits of coursework, including 33 credits for the major; 41 credits in general education requirements; and 46 credits in the minor, electives, and other degree requirements. At least 17 credits in the major must be earned in upper-level courses (numbered 300 or above).

REQUIREMENTS FOR THE HISTORY MAJOR

Coursework for a major in history includes the following:

- Required foundation course (3 credits): HIST 289
- Required U.S. history sequence (6 credits): HIST 156 and 157
- Required methodology course (3 credits): HIST 309
- World history sequence (6 credits): HIST 115–116 or HIST 141–142
- U.S. distribution course (3 credits): HIST 360, 361, 362, 364, 365, 372, 376, 377, 381, 453, 460, 461, 462, 463, or 467
- European distribution course (3 credits): HIST 324, 325, 326, 327, 332, 333, 334, 335, 336, 337, 358, 430, 431, 432, 433, 434, 437, 438, 439, 440, 441, 443, or 448
- World regions distribution course (3 credits): HIST 342, 353, 354, 382, 383, 389, 392, 464, 465, 466, 480, 481, 482, 483, or 485
- Supplemental major course (3 credits): Any upper-level HIST course
- Required capstone course (3 credits): HIST 495

RECOMMENDED SEQUENCE

The following course sequence will fulfill all the requirements for the BA in History. Coursework for the major is indicated by ◆. Since some recommended courses fulfill more than one requirement, substituting courses for those listed may make it necessary to take additional courses to meet degree requirements. Students should consult an advisor whenever taking advantage of other options. Information on alternate courses (where allowable) to fulfill general education requirements (in communications, arts and humanities, behavioral and social sciences, biological and physical sciences, mathematics, and interdisciplinary issues) may be found on p. 8.

BACHELOR'S DEGREE CURRICULA

History Degree Courses		Credits

First Courses *(to be taken within the first 18 credits)*
Note: Placement tests are required for math and writing courses.

LIBS 150	Introduction to Research	1
WRTG 101	Introduction to Writing	3
or WRTG 101S	Introduction to Writing	
MATH 106	Finite Mathematics	3
	or a higher-level math course	

Introductory Courses *(to be taken within the first 30 credits)*

HUMN 100	Introduction to Humanities	3
	or other arts and humanities course	
BIOL 103	Introduction to Biology	4
	or other biological and physical sciences lecture and laboratory course(s)	
WRTG 293	Introduction to Professional Writing	3
	or other writing course	
◆ HIST 115	World History I	3
or HIST 141	Western Civilization I	
ECON 103	Economics in the Information Age	3
	or other behavioral and social sciences course	
IFSM 201	Concepts and Applications of Information Technology	3
or CMST 301	Digital Media and Society	
◆ HIST 116	World History II	3
or HIST 142	Western Civilization II	

Foundation Courses *(to be taken within the first 60 credits)*

BEHS 103	Technology in Contemporary Society	3
	or other behavioral and social sciences course (discipline must differ from first)	
NSCI 100	Introduction to Physical Science	3
	or other biological and physical sciences lecture course	
◆ HIST 156	History of the United States to 1865	3
HIST 125	Technological Transformations	3
	or other arts and humanities/historical perspective course (discipline must differ from other humanities course)	
COMM 202	Media and Society	3
	or other communication, writing, or speech course	
CMIS 111	Social Networking and Cybersecurity Best Practices	3
	or other computing course	
◆ HIST 157	History of the United States Since 1865	3
◆ HIST 289	Historical Methods	3

Additional Required Courses *(to be taken after introductory and foundation courses)*

WRTG 391	Advanced Research Writing	3
	or other upper-level advanced writing course	
◆ HIST 309	Historical Writing	3
◆ HIST 364	Emergence of Modern America: 1900 to 1945	3
	or other U.S. distribution course for the major	
◆ HIST 337	Europe's Bloodiest Century	3
	or other European distribution course for the major	

◆ HIST 481	History of China from 1839 to 1997	3
or HIST 483	History of Japan Since 1800	
	or other world regions distribution course for the major	
◆ HIST 465	World War II	3
	or other supplemental major course	

Capstone Course for Major *(to be taken in the last 15 credits, preferably a year after completing HIST 309)*

◆ HIST 495	Senior Thesis in History	3

Minor and/or Elective Courses *(to be taken in the last 60 credits along with required major courses)* 46

Recommended Electives

EDTP 600	Professional Fundamentals of Teaching and Learning	
	(for qualified students who plan to enter the MAT program at UMUC; students should note prerequisites and consult an advisor)	
EDTP 635	Adolescent Development and Learning Needs	
	(for qualified students who plan to enter the MAT program at UMUC; students should note prerequisites and consult an advisor)	

Total credits for BA in History		**120**

Minor in History

The history minor complements the skills the student gains in his or her major discipline by offering a historical perspective and by helping to develop critical thinking and an appreciation of the major contributions of various events and individuals to human civilization.

Requirements for the Minor

A minor in history requires the completion of 15 credits of coursework in history. All HIST courses apply. It is recommended that students take HIST 289 as the first course in the minor and take HIST 309 after all other courses in the minor.

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, students should refer to their major and pp. 8–9.

Homeland Security

Students may seek an academic minor in homeland security.

Minor in Homeland Security

The homeland security minor complements the skills the student gains in his or her major discipline by providing knowledge of the concepts of domestic and international security.

An articulation agreement between UMUC's Undergraduate School and Graduate School allows eligible students who complete their undergraduate degree at UMUC with a minor in homeland security to reduce their total coursework for the graduate degree by 6 credits (two courses) and complete both degrees with a total of 150 credits of coursework. More information is available in the graduate catalog.

Requirements for the Minor

A minor in homeland security requires the completion of 15 credits of coursework in homeland security. All HMLS courses apply. It is recommended that students take HMLS 302 or 304 as the first course in the minor (if they 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, students should refer to their major and pp. 8–9.

Humanities

Students may seek either an academic major or minor in humanities.

Major in Humanities

The interdisciplinary major in the humanities helps students broaden their understanding of themselves and their interaction with the world. It offers them an opportunity to gain an understanding of their cultural and intellectual heritage, as well as the tools to use that knowledge as lifelong learners. Students may explore how individuals and groups understand their existence, their place within their cultures, and their responsibility to others and the physical world. They may also practice ways to express this understanding—by studies in literature, language, and history and through creative and expressive art—and define their own meaning of humanness within an increasingly technological and diverse world. The interdisciplinary curriculum draws on art, art history, cultural history, literature, language, music, philosophy and religious studies, and theater.

Intended Program Outcomes

The student who graduates with a major in the humanities should be able to

- Use the knowledge, experiences, and skills gained from the study of the humanities to develop one's identity as a lifelong learner and contributing member of one's community and society.
- Plan, communicate, and implement coherent and justifiable practices that improve human conditions.
- Analyze ideas critically and defend recommendations for improving the conditions of all members of society.
- Act in a personally and socially responsible manner, recognizing the complexity and diversity of the human experience.

Degree Requirements

A degree with a major in humanities requires the successful completion of 120 credits of coursework, including 33 credits for the major; 41 credits in general education requirements; and 46 credits in the minor, electives, and other degree requirements. At least 17 credits in the major must be earned in upper-level courses (numbered 300 or above).

BACHELOR'S DEGREE CURRICULA

REQUIREMENTS FOR THE HUMANITIES MAJOR

Coursework for a major in humanities includes the following:

- Required introductory course (3 credits): HUMN 100
- Foundation courses (12 credits): ARTT 205, HIST 115–116 (or HIST 141–142), and PHIL 140
- Core courses (12 credits): ARTH 372 (or ARTH 373), an upper-level ENGL course, and two upper-level courses designated HUMN and/or PHIL
- Supplemental major course (3 credits): Any upper-level ARTT, ARTH, ENGL, GRCO, HUMN, MUSC, PHIL, or THET course
- Required capstone course (3 credits): HUMN 495

RECOMMENDED SEQUENCE

The following course sequence will fulfill all the requirements for the BA in Humanities. Coursework for the major is indicated by ◆. Since some recommended courses fulfill more than one requirement, substituting courses for those listed may make it necessary to take additional courses to meet degree requirements. Students should consult an advisor whenever taking advantage of other options. Information on alternate courses (where allowable) to fulfill general education requirements (in communications, arts and humanities, behavioral and social sciences, biological and physical sciences, mathematics, and interdisciplinary issues) may be found on p. 8.

Humanities Degree Courses		Credits
First Courses *(to be taken within the first 18 credits)*		
Note: Placement tests are required for math and writing courses.		
LIBS 150	Introduction to Research	1
WRTG 101	Introduction to Writing	3
or WRTG 101S	Introduction to Writing	
MATH 106	Finite Mathematics	3
	or a higher-level math course	
Introductory Courses *(to be taken within the first 30 credits)*		
HIST 125	Technological Transformations	3
	or other arts and humanities/historical perspective course	
BIOL 103	Introduction to Biology	4
	or other biological and physical sciences lecture and laboratory course(s)	
◆ HUMN 100	Introduction to Humanities	3
ECON 103	Economics in the Information Age	3
	or other behavioral and social sciences course	
WRTG 293	Introduction to Professional Writing	3
	or other writing course	
IFSM 201	Concepts and Applications of Information Technology	3
or CMST 301	Digital Media and Society	

Foundation Courses *(to be taken within the first 60 credits)*		
◆ HIST 115	World History I	3
or HIST 141	World Civilization I	
BEHS 103	Technology in Contemporary Society	3
	or other behavioral and social sciences course (discipline must differ from first)	
NSCI 100	Introduction to Physical Science	3
	or other biological and physical sciences lecture course	
◆ HIST 116	World History II	3
or HIST 142	Western Civilization II	
ENGL 240	Introduction to Fiction, Poetry, and Drama	3
	or other arts and humanities course (discipline must differ from other humanities course)	
CMIS 111	Social Networking and Cybersecurity Best Practices	3
	or other computing course	
◆ PHIL 140	Contemporary Moral Issues	3
COMM 202	Media and Society	3
	or other communication, writing, or speech course	
◆ ARTT 205	Art Appreciation	3
Additional Required Courses *(to be taken after introductory and foundation courses)*		
WRTG 391	Advanced Research Writing	3
	or other upper-level advanced writing course	
◆ ARTH 372	History of Western Art I	3
or ARTH 373	History of Western Art II	
◆ ENGL 433	Modern American Literature: 1914–1945	3
	or other upper-level ENGL core course for the major	
◆ HUMN 351	Myth in the World	3
	or other PHIL or HUMN core course for the major	
◆ PHIL 336	Ideas Shaping the 21st Century	3
	or other PHIL or HUMN core course for the major	
◆ PHIL 348	Religions of the East	3
	or other supplemental major course	
Capstone Course for Major *(to be taken in the last 15 credits)*		
◆ HUMN 495	Humanities Seminar	3
Minor and/or Elective Courses *(to be taken in the last 60 credits along with required major courses)*		46
Total credits for BA in Humanities		**120**

Minor in Humanities

The humanities minor complements the skills the student gains in his or her major discipline by providing an integrated curriculum for enrichment and exploration of culture and ideas, as well as a broad perspective on human behavior, thought, and values across traditional disciplines.

Requirements for the Minor

A minor in humanities requires the completion of 15 credits of coursework in humanities and related disciplines. Courses allowable for the major 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 humanities-related courses (numbered 300 or above). Prerequisites apply for all courses.

For a listing of all the requirements for the bachelor's degree, students should refer to their major and pp. 8–9.

Human Resource Management

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

Major in Human Resource Management

The human resource management major helps provide 21st-century skills, knowledge, and understanding of human resource functions in private- and public-sector organizational settings. These functions include human resource planning; recruitment, selection, placement, and orientation of employees; training and career development; labor relations; management of performance appraisal and total rewards programs; and development of personnel policies and procedures. The curriculum also covers management and organization theory, organizational behavior and development approaches, labor relations theory and practice, and interpersonal skill development. Students can prepare for work in business administration and human resources in the for-profit, nonprofit, or public sector. Through the proper selection of courses, the student can also prepare for the certification examinations for Professional in Human Resources, Senior Professional in Human Resources, and Global Professional in Human Resources, which are offered by the Society for Human Resource Management.

Intended Program Outcomes

The student who graduates with a major in human resource management should be able to

- Apply business knowledge, reflective practices, and ethical leadership skills that drive learning and self-improvement to develop strategic competencies and position the organization competitively.

- Apply knowledge of human behavior, labor relations, and current laws and regulations to produce a working environment that is safe, fair, and compliant with all applicable regulations and where all employees are motivated and valued.

- Develop, implement, and assess training, development, and total rewards programs that foster employee and organizational learning and development.

- Recognize the different cultures and world views that inform human thinking and action and respond constructively to human and global 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 that educates and influences others.

Degree Requirements

A degree with a major in human resource management requires the successful completion of 120 credits of coursework, including 36 credits for the major; 41 credits in general education requirements; and 43 credits in the minor, electives, and other degree requirements. At least 18 credits in the major must be earned in upper-level courses (numbered 300 or above).

REQUIREMENTS FOR THE HUMAN RESOURCE MANAGEMENT MAJOR

Coursework for a major in human resource management includes the following:

- Foundation courses (12 credits): BMGT 110 (or BMGT 364), ACCT 301 (or ACCT 221), FINC 331 (or any upper-level FINC course except FINC 321 or 322), and MRKT 310

- Required core courses (18 credits): HRMN 300, 362, 395, 400, 406, and 408

- Supplemental major course (3 credits): Chosen from BMGT 365, 465, and 484 and any HRMN courses

- Required capstone course (3 credits): HRMN 495

- Required related course (3 credits), which may be applied anywhere in the degree: IFSM 300

RECOMMENDED SEQUENCE

The following course sequence will fulfill all the requirements for the BS in Human Resource Management. Coursework for the major is indicated by ◆. Since some recommended courses fulfill more than one requirement, substituting courses for those listed may make it necessary to take additional courses to meet degree requirements. Students should consult an advisor whenever taking advantage of other options. Information on alternate courses (where allowable) to fulfill general education requirements (in communications, arts and humanities, behavioral and social

sciences, biological and physical sciences, mathematics, and interdisciplinary issues) may be found on p. 8.

Human Resource Management Degree Courses		Credits

First Courses *(to be taken within the first 18 credits)*
Note: Placement tests are required for math and writing courses.

LIBS 150	Introduction to Research	1
WRTG 101	Introduction to Writing	3
or WRTG 101S	Introduction to Writing	
MATH 106	Finite Mathematics	3
	or a higher-level math course	

Introductory Courses *(to be taken within the first 30 credits)*

◆ BMGT 110	Introduction to Business and Management	3
or BMGT 364	Management and Organization Theory *(for students with business experience)*	
ECON 103	Economics in the Information Age *or other behavioral and social sciences course*	3
BIOL 103	Introduction to Biology *or other biological and physical sciences lecture and laboratory course(s)*	4
WRTG 293	Introduction to Professional Writing *or other writing course*	3
IFSM 201	Concepts and Applications of Information Technology *(prerequisite to later course)*	3
HUMN 100	Introduction to Humanities *or other arts and humanities course*	3

Foundation Courses *(to be taken within the first 60 credits)*

BEHS 103	Technology in Contemporary Society *or other behavioral and social sciences course (discipline must differ from first)*	3
◆ ACCT 301	Accounting for Nonaccounting Majors	3
or ACCT 221	Principles of Accounting II *(students should note prerequisite)*	
NSCI 100	Introduction to Physical Science *or other biological and physical sciences lecture course*	3
HIST 125	Technological Transformations *or other arts and humanities/historical perspective course (discipline must differ from other humanities course)*	3
IFSM 300	Information Systems in Organizations *(related requirement for the major; also fulfills the computing requirement)*	3
COMM 202	Media and Society *or other communication, writing, or speech course*	3
◆ MRKT 310	Marketing Principles	3
◆ FINC 331	Finance for the Nonfinancial Manager	3

Additional Required Courses *(to be taken after introductory and foundation courses)*

WRTG 394	Advanced Business Writing *or other upper-level advanced writing course*	3
◆ HRMN 300	Human Resource Management	3

◆ HRMN 302	Organizational Communication	3
or HRMN 367	Organizational Culture *or other supplemental major course*	
◆ HRMN 362	Labor Relations	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
◆ HRMN 408	Employment Law for Business	3

Capstone Course for Major *(to be taken in the last 15 credits)*

◆ HRMN 495	Contemporary Issues in Human Resource Management Practice	3

Minor and/or Elective Courses *(to be taken in the last 60 credits along with required major courses)*   **43**

Recommended Minors
Business administration, finance, or other business-related minor

Recommended Electives

HRMN 302	Organizational Communication
HRMN 365	Conflict Management in Organizations
HRMN 392	Managing Stress in the Workplace
HRMN 467	Global Human Resource Management

Total credits for BS in Human Resource Management	**120**

Minor in Human Resource Management

The human resource management minor complements the skills the student gains in his or her 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.

Requirements for the Minor

A minor in human resource management requires the completion of 15 credits of coursework in human resource management. Any HRMN course applies. It is recommended that students take HRMN 300 and 400 for the minor (if they 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, students should refer to their major and pp. 8–9.

Information Systems Management

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

Major in Information Systems Management

The information systems management major helps students develop the ability to conceptualize and manage the design and implementation of high-quality information systems. The curriculum focuses on the concepts, methods, and practical applications of information systems in the workplace. Students are given the opportunity to practice the skills needed to make substantive contributions to the use of information systems in corporate decision making.

Intended Program Outcomes

The student who graduates with a major in information systems management should be able to

- Evaluate, select, and apply appropriate analytical and measurement methods/tools and system development life cycle (SDLC) methodologies to meet organizational needs.
- Research, assess, recommend/select, and implement information technology that aligns with business needs, provides capability for business continuity, and meets business objectives.
- Communicate effectively with stakeholders orally, visually, and in writing to determine stakeholders' business requirements, explain how their requirements will be met, and provide on-going audience-appropriate information.
- Protect organizations' critical information and 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.

Degree Requirements

A degree with a major in information systems management requires the successful completion of 120 credits of coursework, including 33 credits for the major; 41 credits in general education requirements; and 46 credits in the minor, electives, and other degree requirements. At least 17 credits in the major must be earned in upper-level courses (numbered 300 or above).

REQUIREMENTS FOR THE INFORMATION SYSTEMS MANAGEMENT MAJOR

Coursework for a major in information systems management includes the following:

- Required foundation courses (12 credits): IFSM 300 (or 305), 301, 304, and 310
- Required core courses (15 credits): CMIS 320 and IFSM 311, 370, 438, and 461
- Supplemental major course (3 credits): Any upper-level CMIS, CMIT, CMSC, CMST, CSIA, IFSM, or SDEV courses
- Required capstone course (3 credits): IFSM 495
- Required related courses (6 credits), which may be applied anywhere in the degree: CMIS 102 (or another programming language course) and IFSM 201

RECOMMENDED SEQUENCE

The following course sequence will fulfill all the requirements for the BS in Information Systems Management. Coursework for the major is indicated by ◆. Since some recommended courses fulfill more than one requirement, substituting courses for those listed may make it necessary to take additional courses to meet degree requirements. Students should consult an advisor whenever taking advantage of other options. Information on alter-nate courses (where allowable) to fulfill general education requirements (in communications, arts and humanities, behavioral and social sciences, biological and physical sciences, mathematics, and interdisciplinary issues) may be found on p. 8.

Information Systems Management Degree Courses		Credits
First Courses *(to be taken within the first 18 credits)*		
Note: Placement tests are required for math and writing courses.		
LIBS 150	Introduction to Research	1
WRTG 101	Introduction to Writing	3
or WRTG 101S	Introduction to Writing	
MATH 106	Finite Mathematics	3
	or a higher-level math course	
Introductory Courses *(to be taken within the first 30 credits)*		
CMIS 102	Introduction to Problem Solving and	
	Algorithm Design	3
	or another programming language course	
	(related requirement for the major)	
HUMN 100	Introduction to Humanities	3
	or other arts and humanities course	
BIOL 103	Introduction to Biology	4
	or other biological and physical sciences lecture and laboratory course(s)	

IFSM 201	Concepts and Applications of Information Technology *(related requirement for the major; also fulfills the computing requirement)*	3
WRTG 293	Introduction to Professional Writing *or other writing course*	3
ECON 103	Economics in the Information Age *or other behavioral and social sciences course*	3

Foundation Courses *(to be taken within the first 60 credits)*

BEHS 103	Technology in Contemporary Society *or other behavioral and social sciences course (discipline must differ from first)*	3
◆ IFSM 300	Information Systems in Organizations	3
NSCI 100	Introduction to Physical Science *or other biological and physical sciences lecture course*	3
HIST 125	Technological Transformations *or other arts and humanities/historical perspective course (discipline must differ from other humanities course)*	3
◆ IFSM 301	Foundations of Information Systems Management	3
COMM 202	Media and Society *or other communication, writing, or speech course*	3
◆ IFSM 304	Ethics in Information Technology	3

Additional Required Courses *(to be taken after introductory and foundation courses)*

WRTG 393	Advanced Technical Writing *or other upper-level advanced writing course*	3
◆ IFSM 310	Software and Hardware Infrastructure Concepts	3
◆ IFSM 370	Telecommunication in Information Systems	3
◆ CMIS 320	Relational Database Concepts and Applications	3
◆ IFSM 311	Enterprise Architecture	3
◆ IFSM 438	Information Systems Project Management	3
◆ IFSM 461	Systems Analysis and Design	3
◆ IFSM 441	Agile Project Management *or other supplemental major course*	3

Capstone Course for Major *(to be taken in the last 15 credits)*

| ◆ IFSM 495 | Trends and Practical Applications in Information Systems Management | 3 |

Minor and/or Elective Courses *(to be taken in the last 60 credits along with required major courses)* | | 46 |

Recommended Minors

Business administration, cybersecurity, or marketing

Recommended Electives

| MATH 140 | Calculus I *(for students who plan to go on to graduate school; students should note prerequisites)* | |
| WRTG 490 | Writing for Managers | |

Total credits for BS in Information Systems Management | **120**

Minor in Information Systems Management

The information systems management minor complements the skills the student gains in his or her major discipline by helping students develop their abilities to conceptualize and manage the design and implementation of high-quality information systems.

Requirements for the Minor

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, students should refer to their major and pp. 8–9.

International Business

Students may seek an academic minor in international business.

Minor in International Business

The international business minor complements the skills the student gains in his or her major discipline by presenting the basic concepts, theories, policies, and practices that support the institutional, environmental, functional, and strategic framework for conducting global business transactions.

Requirements for the Minor

A minor in international business requires the completion of 15 credits of coursework in international business. Students must complete BMGT 392 Global Business. The remaining coursework may be chosen from the following:

- ACCT 425   International Accounting
- BMGT 307   Import and Export: Managing Global Trade
- BMGT 437   International Business Law
- BMGT 456   Managing Across Cultures and Borders
- BMGT 466   Global Public Management
- FINC 460   International Finance
- HRMN 467   Global Human Resource Management
- MRKT 454   Global Marketing

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, students should refer to their major and pp. 8–9.

Investigative Forensics

Students may seek an academic major in investigative forensics. A related minor is available in forensics (p. 38).

Major in Investigative Forensics

The investigative forensics major helps prepare students with the knowledge, skills, and ethical principles necessary to process and report on physical evidence at a crime scene or in connection with a civil investigation. The program is designed to help students understand both the theory and practice of the forensic disciplines and of police work. Based on national guidelines, the curriculum provides a basic foundation in investigative, scientific, and laboratory-based forensics and introduces students to the various disciplines that make up the forensic collaborative workgroup. Students may pursue further education or employment in the field.

Intended Program Outcomes

The student who graduates with a major in investigative forensics should be able to

- Apply the scientific method to draw conclusions regarding forensic information.
- Utilize ethical principles and an understanding of legal precedents to make decisions related to investigation, analyses, and testimony as a crime scene or forensic professional.
- Access, interpret, and apply investigative, forensic, and criminal justice research to maintain competency within the field.
- Use effective written and oral communication to clearly report and articulate information, analyses, or findings to relevant end users in a timely manner.
- Recognize and evaluate evidence to determine all of the appropriate analyses to gather all available forensic information.
- Synthesize forensic, evidential, and investigatory information from multiple sources to generate theories about a crime.
- Use an understanding of the capabilities, processes, and limitations of the crime laboratory to be an informed consumer or practitioner.

Degree Requirements

A degree with a major in investigative forensics requires the successful completion of 120 credits of coursework, including 35 credits for the major; 41 credits in general education requirements; and 44 credits in the minor, electives, and other degree requirements. At least 18 credits in the major must be earned in upper-level courses (numbered 300 or above).

REQUIREMENTS FOR THE INVESTIGATIVE FORENSICS MAJOR

Coursework for a major in investigative forensics includes the following:

- Required foundation courses (20 credits): CCJS 101, 234, 301, 302, and 342 and STAT 200
- Specialization courses (15 credits) chosen from a single area:
  - Scientific specialization as follows:
    - Required core courses (6 credits): CCJS 420 and 461
    - Applied discipline course (3 credits): CCJS 440, CCJS 441, CCJS 486A, or CCJS 486B; BIOL 320; or ANTH 351
    - Supplemental major courses (6 credits): Chosen from BIOL 160 and 350; FSCN 414; and any chemistry, forensic science, and physics courses
  - Digital specialization, as follows:
    - Required core courses (6 credits): CCJS 390 and 421
    - Applied discipline course (3 credits): CCJS 453, CCJS 486A, CCJS 486B, CMIT 202, or CMIT 424
    - Supplemental major courses (6 credits): Chosen from CMIT 202, 424, and 440 and any CSIA or IFSM courses
- Required related course (3 credits): WRTG 393

RECOMMENDED SEQUENCE

The following course sequence will fulfill all the requirements for the BS in Investigative Forensics. Coursework for the major is indicated by ◆. Since some recommended courses fulfill more than one requirement, substituting courses for those listed may make it necessary to take additional courses to meet degree requirements. Students should consult an advisor whenever taking advantage of other options. Information on alternate courses (where allowable) to fulfill general education requirements (in communications, arts and humanities, behavioral and social sciences, biological and physical sciences, mathematics, and interdisciplinary issues) may be found on p. 8.

Investigative Forensics Degree Courses		Credits
First Courses *(to be taken within the first 18 credits)*		
Note: Placement tests are required for math and writing courses.		
LIBS 150	Introduction to Research	1
WRTG 101	Introduction to Writing	3
or WRTG 101S	Introduction to Writing	
MATH 106	Finite Mathematics	3
	or a higher-level math course	
Introductory Courses *(to be taken within the first 30 credits)*		
◆ CCJS 101	Introduction to Investigative Forensics	3
ECON 103	Economics in the Information Age	3
	or other behavioral and social sciences course	

BIOL 103	Introduction to Biology	4
	or other biological and physical sciences lecture and laboratory course(s)	
WRTG 293	Introduction to Professional Writing	3
	or other writing course	
IFSM 201	Concepts and Applications of Information Technology	3
or CMST 301	Digital Media and Society	
◆ CCJS 234	Criminal Procedure and Evidence	3
HUMN 100	Introduction to Humanities	3
	or other arts and humanities course	

Foundation Courses *(to be taken within the first 60 credits)*

CMIS 111	Social Networking and Cybersecurity Best Practices	3
	or other computing course	
◆ STAT 200	Introduction to Statistics	3
BEHS 103	Technology in Contemporary Society	3
	or other behavioral and social sciences course (discipline must differ from first)	
NSCI 100	Introduction to Physical Science	3
	or other biological and physical sciences lecture course	
◆ CCJS 301	Criminalistics I: The Comparative Disciplines	4
HIST 125	Technological Transformations	3
	or other arts and humanities/historical perspective course (discipline must differ from other humanities course)	
COMM 202	Media and Society	3
	or other communication, writing, or speech course	

Additional Required Courses *(to be taken after introductory and foundation courses)*

WRTG 393	Advanced Technical Writing	3
	(related requirement for the major; also fulfills the upper-level advanced writing requirement)	
◆ CCJS 302	Criminalistics II: The Scientific Disciplines	4
◆ CCJS 342	Crime Scene Investigation	3
◆ CCJS 390	Cyber Crime and Security	3
or CCJS 420	Medical and Legal Investigations of Death	
◆ CCJS 421	Principles of Digital Forensics	3
or CCJS 461	Psychology of Criminal Behavior	
◆ CMIT 202	Fundamentals of Computer Troubleshooting	3
or CCJS 486A	Workplace Learning in Criminal Justice	
	or other applied discipline course for the specialization	
◆ CMIT 424	Digital Forensics Analysis and Application	3
or BIOL 350	Molecular and Cellular Biology	
	or other supplemental major course for the specialization	
◆ CMIT 440	Mobile Forensics	3
or FSCN 414	Fire Dynamics	
	or other supplemental major course for the specialization	

Minor and/or Elective Courses *(to be taken in the last 60 credits along with required major courses)*	44
Recommended Minors	
Biology (for scientific specialization)	
Cybersecurity (for digital specialization)	

| **Total credits for BS in Investigative Forensics** | **120** |

Journalism

Students may seek an academic minor in journalism.

Minor in Journalism

The journalism minor complements the skills the student gains in his or her major discipline by introducing the fundamental concepts and techniques in public relations and mass media writing. Focus is on learning how to create highly effective messages in both traditional and new media for different audiences and contexts. Students can also develop an understanding of the legal and ethical implications of communication.

Requirements for the Minor

A minor in journalism requires the completion of 15 credits of coursework in journalism and communication studies. All JOUR and COMM courses apply. At least 9 credits must be earned in JOUR courses. It is recommended that students take JOUR 201 and 202 first, followed by COMM 300 and 400 (if they 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, students should refer to their major and pp. 8–9.

Laboratory Management

Students who 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 UMUC has an articulation agreement or within another appropriate transfer program—may seek an academic major in laboratory management. Students should consult an advisor before electing this major.

Major in Laboratory Management

The laboratory management major helps prepare students to manage and coordinate the nontechnical activities that contribute to a safe and well-run laboratory. It builds on the technical and scientific knowledge gained through the associate's degree program and direct experience in the field. The curriculum provides in-depth study of both scientific concepts and procedures and management skills related to inventory, budget, personnel, and operations. It is designed to prepare students to meet employer needs for scientific technicians trained in both the sciences and the management of laboratory activities.

Intended Program Outcomes

The student who graduates with a major in laboratory management should be able to

- Create a healthy, safe, and productive workplace by effectively and appropriately hiring, training, supporting, and evaluating laboratory personnel.
- Manage (plan, organize, and direct) the daily work activities of a laboratory setting by working independently and as a member of a team, meeting job expectations, and adhering to organizational policies and goals.
- Communicate thoughts orally and in writing 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 and professional.
- 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

A degree with a major in laboratory management requires the successful completion of 120 credits of coursework, including 36 credits for the major; 41 credits in general education requirements; and 43 credits in the minor, electives, and other degree requirements. At least 18 credits in the major must be earned in upper-level courses (numbered 300 or above).

REQUIREMENTS FOR THE MAJOR

Coursework for a major in laboratory management includes the following lower-level coursework taken as part of an appropriate degree program at an approved community college or other institution:

- Foundation courses (15 credits, at least 12 of which should be in laboratory science coursework): Chosen from biology, biochemistry, biotechnology, chemistry, microbiology, and molecular biology courses
- Additional required related science coursework (14 credits), which may be applied anywhere in the bachelor's degree

Coursework for a major in laboratory management also includes the following:

- Required upper-level core courses (12 credits): BIOL 325, BMGT 364, FINC 331, and NSCI 301
- Supplemental major course (3 credits): Chosen from BIOL 400; BMGT 317 and 487; COMM 300; IFSM 300; and SPCH 324, 397, 426, 470, and 482
- Required workplace learning internship (6 credits): Courses numbered 486A or 486B in any related discipline
- Required related courses (6 credits), which may be applied anywhere in the degree: STAT 200 and WRTG 393

RECOMMENDED SEQUENCE

The following course sequence will fulfill all the requirements for the BTPS or the BS in Laboratory Management (if the student selects appropriate courses as part of the transfer coursework). Coursework for the major is indicated by ◆. Since some recommended courses fulfill more than one requirement, substituting courses for those listed may make it necessary to take additional courses to meet degree requirements. Students should consult an advisor whenever taking advantage of other options. Information on alternate courses (where allowable) to fulfill general education requirements (in communications, arts and humanities, behavioral and social sciences, biological and physical sciences, mathematics, and interdisciplinary issues) may be found on p. 8.

Laboratory Management Degree Courses   **Credits**

Required Courses from Transfer Institution

◆ Lower-level coursework in biology, biochemistry, biotechnology, chemistry, microbiology, and molecular biology   15

Additional required science coursework   14
(should also fulfill requirements in biological and physical sciences)

First Courses *(to be taken within the first 18 credits at UMUC if not brought in transfer)*
Note: Placement tests are required for math and writing courses.

LIBS 150	Introduction to Research	1
WRTG 101	Introduction to Writing	3
or WRTG 101S	Introduction to Writing	
MATH 106	Finite Mathematics	3
	or a higher-level math course	

Introductory and General Education Courses *(to be taken within the first 30 credits)*

IFSM 201	Concepts and Applications of Information Technology	3
or CMST 301	Digital Media and Society	
WRTG 293	Introduction to Professional Writing	3
	or other writing course	
ECON 103	Economics in the Information Age	3
	or other behavioral and social sciences course	
HUMN 100	Introduction to Humanities	3
	or other arts and humanities course	
STAT 200	Introduction to Statistics	3
	(related requirement for the major)	
BEHS 103	Technology in Contemporary Society	3
	or other behavioral and social sciences course	
	(discipline must differ from first)	
HIST 125	Technological Transformations	3
	or other arts and humanities/historical perspective course	
	(discipline must differ from other humanities course)	
COMM 202	Media and Society	3
	or other communication, writing, or speech course	
CMIS 111	Social Networking and Cybersecurity Best Practices	3
	or other computing course	

Required Upper-Level Courses for Major *(to be taken after introductory and foundation courses)*

WRTG 393	Advanced Technical Writing	3
	(related requirement for the major; also fulfills the upper-level advanced writing requirement)	
◆ 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 Organization and Management	3
◆ BMGT 317	Decision Making	3
	or other supplemental major course	

Internship for Major *(to be taken in the last 30 credits)*

◆ Internship through Workplace Learning   6

Minor and/or Elective Courses *(to be taken in the last 60 credits along with required major courses)*   33

Total credits for BS or BTPS in Laboratory Management   **120**

Law for Business

Students may seek an academic minor in law for business.

Minor in Law for Business

The law for business minor complements the knowledge and skills the student gains in his or her major discipline by providing opportunities to achieve substantive knowledge and practical skill competencies in selected areas of law relevant to business.

Requirements for the Minor

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
BMGT 437	International Business Law
COMM 400	Mass Media Law
HRMN 408	Employment Law for Business
LGST 201	Legal Writing
LGST 312	Torts
LGST 327	Alternative Dispute Resolution
LGST 340	Contract Law
LGST 411	Consumer Protection Law
LGST 415	Intellectual Property Law
LGST 442	Business Organizations
LGST 450	Bankruptcy 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, students should refer to their major and pp. 8–9.

Legal Studies

Students may seek an academic major in legal studies.

Major in Legal Studies

The legal studies program helps provide the knowledge, skills, and ethical principles necessary to research and produce legal information and documents in law-related environments. The curriculum addresses the organization, function, and processes of the lawmaking institutions in the American legal system, as well as the role of the paralegal in the legal system and the governing rules of legal ethics. It emphasizes legal analysis, legal writing and drafting, legal research, and computer competence in the legal environment. The major in legal studies offers a solid foundation to help prepare students for challenging paralegal work in various legal settings as well as for further education in a variety of fields.

Intended Program Outcomes

The student who graduates with a major in legal studies should be able to

- Conduct research using appropriate resources to identify relevant, current legal authority.
- Draft writings that reflect critical thinking and legal reasoning to inform, evaluate, and advocate on legal issues.
- Apply understanding of legal concepts and procedures to efficiently and ethically support the resolution of legal disputes.
- Synthesize relevant information and appropriately complete a wide variety of forms and documents used to meet client objectives.

Degree Requirements

A degree with a major in legal studies requires the successful completion of 120 credits of coursework, including 33 credits for the major; 41 credits in general education requirements; and 46 credits in the minor, electives, and other degree requirements. At least 17 credits in the major must be earned in upper-level courses (numbered 300 or above).

REQUIREMENTS FOR THE LEGAL STUDIES MAJOR

Coursework for a major in legal studies includes the following:

- Required core courses (15 credits): LGST 101, 200, 201, 204, and 301
- Applied discipline courses (12 credits): Chosen from LGST 300, 312, 315, 316, 320, 322, 325, 327, 330, 335, 340, 411, 415, 425, 442, 450, and 460

- Supplemental major course (3 credits): Any LGST course
- Capstone course (3 credits): LGST 495

RECOMMENDED SEQUENCE

The following course sequence will fulfill all the requirements for the BS in Legal Studies. Coursework for the major is indicated by ◆. Since some recommended courses fulfill more than one requirement, substituting courses for those listed may make it necessary to take additional courses to meet degree requirements. Students should consult an advisor whenever taking advantage of other options. Information on alternate courses (where allowable) to fulfill general education requirements (in communications, arts and humanities, behavioral and social sciences, biological and physical sciences, mathematics, and interdisciplinary issues) may be found on p. 8.

Legal Studies Degree Courses		Credits
First Courses *(to be taken within the first 18 credits)*		
Note: Placement tests are required for math and writing courses.		
LIBS 150	Introduction to Research	1
WRTG 101	Introduction to Writing	3
or WRTG 101S	Introduction to Writing	
MATH 106	Finite Mathematics	3
	or a higher-level math course	
Introductory Courses *(to be taken within the first 30 credits)*		
HUMN 100	Introduction to Humanities	3
	or other arts and humanities course	
ECON 103	Economics in the Information Age	3
	or other behavioral and social sciences course	
BIOL 103	Introduction to Biology	4
	or other biological and physical sciences lecture and laboratory course(s)	
WRTG 293	Introduction to Professional Writing	3
	or other writing course	
IFSM 201	Concepts and Applications of Information Technology	3
or CMST 301	Digital Media and Society	
BEHS 103	Technology in Contemporary Society	3
	or other behavioral and social sciences course (discipline must differ from first)	
Foundation Courses *(to be taken within the first 60 credits)*		
HIST 125	Technological Transformations	3
	or other arts and humanities/historical perspective course (discipline must differ from other humanities course)	
NSCI 100	Introduction to Physical Science	3
	or other biological and physical sciences lecture course	
COMM 202	Media and Society	3
	or other communication, writing, or speech course	
◆ LGST 101	Introduction to Law	3
◆ LGST 200	Techniques of Legal Research	3

◆ LGST 201	Legal Writing	3
◆ LGST 204	Legal Ethics	3
CMIS 111	Social Networking and Cybersecurity Best Practices *or other computing course*	3

Additional Required Courses *(to be taken after introductory and foundation courses)*

WRTG 394	Advanced Business Writing *or other upper-level advanced writing course*	3
◆ LGST 301	Advanced Legal Writing	3
◆ LGST 300	Advanced Legal Research and Analysis *or other applied discipline course*	3
◆ LGST 312	Torts *or other core course for the major*	3
◆ LGST 325	Litigation *or other applied discipline course for the major*	3
◆ LGST 320	Criminal Law and Procedures *or other applied discipline course for the major*	3
◆ LGST 340	Contract Law *or other supplemental major course*	3

Capstone Course for the Major *(to be taken in the last 9 credits)*

| ◆ LGST 495 | Advanced Professional Practice | 3 |

Minor and/or Elective Courses *(to be taken in the last 60 credits along with required major courses)* — 46

| **Total credits for BS in Legal Studies** | **120** |

Management Studies

Students may seek an academic major in management studies.

Major in Management Studies

The management studies major helps provide an interdisciplinary and holistic approach to developing skills and knowledge in decision making, problem solving, and leadership. The curriculum includes a foundation in business, accounting, economics, statistics, communications, and management theory and focuses on analysis and decision making across a wide spectrum of management activities. The major helps prepare students for a variety of management-related careers.

Intended Program Outcomes

The student who graduates with a major in management studies should be able to

- Apply leadership skills to promote communication, ethical behavior, and quality performance.
- Implement appropriate employment practices, encourage team building, and mentor junior members of the staff.
- Communicate effectively with culturally diverse audiences using a variety of formats and technology.
- Assess and develop performance measures, feedback, and coaching that facilitate 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

A degree with a major in management studies requires the successful completion of 120 credits of coursework, including 36 credits for the major; 41 credits in general education requirements; and 43 credits in the minor, electives, and other degree requirements. At least 18 credits in the major must be earned in upper-level courses (numbered 300 or above).

REQUIREMENTS FOR THE MANAGEMENT STUDIES MAJOR

Coursework for a major in management studies includes the following:

- Foundation courses (12 credits): BMGT 110 (or prior business experience and an additional supplemental course), ACCT 220 (or ACCT 301), HRMN 302, and STAT 230 (or STAT 200)
- Core courses (9 credits): BMGT 364, 365, and 464 (or 465)

- Supplemental major courses (12 credits): Any ACCT, BMGT, ENMT, FINC, HMGT, HRMN, and MRKT courses
- Required capstone course (3 credits): BMGT 485
- Required related courses (6 credits), which may be applied anywhere in the degree: IFSM 300 and ECON 201 (or 203)

RECOMMENDED SEQUENCE

The following course sequence will fulfill all the requirements for the BS in Management Studies. Coursework for the major is indicated by ◆. Since some recommended courses fulfill more than one requirement, substituting courses for those listed may make it necessary to take additional courses to meet degree requirements. Students should consult an advisor whenever taking advantage of other options. Information on alternate courses (where allowable) to fulfill general education requirements (in communications, arts and humanities, behavioral and social sciences, biological and physical sciences, mathematics, and interdisciplinary issues) may be found on p. 8.

Management Studies Degree Courses		Credits
First Courses *(to be taken within the first 18 credits)*		
Note: Placement tests are required for math and writing courses.		
LIBS 150	Introduction to Research	1
WRTG 101	Introduction to Writing	3
or WRTG 101S	Introduction to Writing	
MATH 106	Finite Mathematics	3
	or a higher-level math course	
◆ BMGT 110	Introduction to Business and Management	3
	(students with business experience should substitute a supplemental major course in the last 60 credits of study)	
Introductory Courses *(to be taken within the first 30 credits)*		
ECON 201	Principles of Macroeconomics	3
or ECON 203	Principles of Microeconomics	
	(related requirement for the major; also fulfills the behavioral and social sciences requirement)	
BIOL 103	Introduction to Biology	4
	or other biological and physical sciences lecture and laboratory course(s)	
WRTG 293	Introduction to Professional Writing	3
	or other writing course	
IFSM 201	Concepts and Applications of Information Technology	3
	(prerequisite to later course)	
HUMN 100	Introduction to Humanities	3
	or other arts and humanities course	
Foundation Courses *(to be taken within the first 60 credits)*		
◆ STAT 230	Introductory Business Statistics	3
or STAT 200	Introduction to Statistics	

BEHS 103	Technology in Contemporary Society	3
	or other behavioral and social sciences course (discipline must differ from first)	
◆ ACCT 220	Principles of Accounting I	3
or ACCT 301	Accounting for Nonaccounting Managers	
NSCI 100	Introduction to Physical Science	3
	or other biological and physical sciences lecture course	
HIST 125	Technological Transformations	3
	or other arts and humanities/historical perspective course (discipline must differ from other humanities course)	
COMM 202	Media and Society	3
	or other communication, writing, or speech course	
IFSM 300	Information Systems in Organizations	3
	(related requirement for the major; also fulfills the computing requirement)	
◆ HRMN 302	Organizational Communication	3
Additional Required Courses *(to be taken after introductory and foundation courses)*		
WRTG 394	Advanced Business Writing	3
	or other upper-level advanced writing course	
◆ BMGT 364	Management and Organization Theory	3
◆ BMGT 365	Organizational Leadership	3
◆ BMGT 464	Organizational Behavior	3
or BMGT 465	Organizational Development and Transformation	
◆ MRKT 310	Marketing Principles	3
	or other supplemental major course	
◆ FINC 330	Business Finance	3
	or other supplemental major course	
◆ HRMN 300	Human Resource Management	3
	or other supplemental major course	
◆ BMGT 317	Decision Making	3
	or other supplemental major course	
Capstone Course for Major *(to be taken in the last 15 credits)*		
◆ BMGT 485	Leadership for the 21st Century	3
Minor and Elective Courses *(to be taken in the last 60 credits along with required major courses)*		43
Total credits for BS in Management Studies		**120**

BACHELOR'S DEGREE CURRICULA

Marketing

Students may seek either an academic major or minor in marketing.

Major in Marketing

The marketing major helps provide students with the marketing skills and business acumen necessary for professional and personal success in today's global business environment. The curriculum offers a balanced course of study that is designed to expose students to a common body of knowledge and help them understand marketing processes and situations, think independently, communicate effectively, and appreciate their own and other cultures. Students with a major in marketing may pursue a broad spectrum of marketing positions in private and public corporations, marketing agencies, or entrepreneurial endeavors.

Intended Program Outcomes

The student who graduates with a major in marketing should be able 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 an effective marketing plan, and support decisions that meet the needs and wants of global customers.
- Utilize verbal and nonverbal communication skills, including strategic communication, technology, fluency in business language, and effective customer communication, to achieve personal and organizational goals.
- Act with personal and professional integrity, conveying an ethical orientation in the global marketplace of employers, peers, and customers.
- Cultivate and maintain positive interpersonal relationships based on demonstrated character, behavior, engagement, and positive interaction with teams, managers, and customers.

Degree Requirements

A degree with a major in marketing requires the successful completion of 120 credits of coursework, including 36 credits for the major; 41 credits in general education requirements; and 43 credits in the minor, electives, and other degree requirements.

At least 18 credits in the major must be earned in upper-level courses (numbered 300 or above).

REQUIREMENTS FOR THE MARKETING MAJOR

Coursework for a major in marketing includes the following:

- Business courses (15 credits): ACCT 301 (or 221); BMGT 364, 380, and 496; and STAT 230
- Required marketing courses (12 credits): MRKT 310, 354, 410, and 412
- Supplemental major courses (6 credits): Any MRKT courses
- Required capstone course (3 credits): MRKT 495
- Required related courses (9 credits), which may be applied anywhere in the degree: IFSM 300 and ECON 201 and 203

RECOMMENDED SEQUENCE

The following course sequence will fulfill all the requirements for the BS in Marketing. Coursework for the major is indicated by ◆. Since some recommended courses fulfill more than one requirement, substituting courses for those listed may make it necessary to take additional courses to meet degree requirements. Students should consult an advisor whenever taking advantage of other options. Information on alternate courses (where allowable) to fulfill general education requirements (in communications, arts and humanities, behavioral and social sciences, biological and physical sciences, mathematics, and interdisciplinary issues) may be found on p. 8.

Marketing Degree Courses		Credits
First Courses *(to be taken within the first 18 credits)*		
Note: Placement tests are required for math and writing courses.		
LIBS 150	Introduction to Research	1
WRTG 101	Introduction to Writing	3
or WRTG 101S	Introduction to Writing	
MATH 106	Finite Mathematics	3
	or a higher-level math course	
BMGT 110	Introduction to Business and Management	3
	(strongly recommended elective for students with no prior business experience)	
Introductory Courses *(to be taken within the first 30 credits)*		
ECON 201	Principles of Macroeconomics	3
	(related requirement for the major; also fulfills the first behavioral and social sciences requirement)	
BIOL 103	Introduction to Biology	4
	or other biological and physical sciences lecture and laboratory course(s)	
WRTG 293	Introduction to Professional Writing	3
	or other writing course	
IFSM 201	Concepts and Applications of Information Technology	3
	(prerequisite to later course)	

| ◆ STAT 230 | Introductory Business Statistics | 3 |
| HUMN 100 | Introduction to Humanities
or other arts and humanities course | 3 |

Foundation Courses *(to be taken within the first 60 credits)*

BEHS 103	Technology in Contemporary Society *or other behavioral and social sciences course* *(discipline must differ from first)*	3
NSCI 100	Introduction to Physical Science *or other biological and physical sciences lecture course*	3
HIST 125	Technological Transformations *or other arts and humanities/historical perspective course* *(discipline must differ from other humanities course)*	3
ECON 203	Principles of Microeconomics *(related requirement for the major)*	3
◆ ACCT 301	Accounting for Nonaccounting Majors	3
or ACCT 221	Principles of Accounting II *(students should note prerequisite)*	
COMM 202	Media and Society *or other communication, writing, or speech course*	3
◆ BMGT 364	Management and Organization Theory	3
IFSM 300	Information Systems in Organizations *(related requirement for the major; also fulfills the* *computing requirement)*	3
◆ MRKT 310	Marketing Principles	3

Additional Required Courses *(to be taken after introductory and foundation courses)*

WRTG 394	Advanced Business Writing *or other upper-level advanced writing course*	3
◆ BMGT 380	Business Law I	3
◆ MRKT 354	Integrated Marketing Communications	3
◆ MRKT 457	E-Marketing *or other supplemental major course*	3
◆ MRKT 410	Consumer Behavior	3
◆ BMGT 496	Business Ethics	3
◆ MRKT 454	Global Marketing *or other supplemental major course*	3
◆ MRKT 412	Marketing Research	3

Capstone Course for Major *(to be taken in the last 15 credits)*

| ◆ MRKT 495 | Strategic Marketing Management | 3 |

Minor and/or Elective Courses *(to be taken in the last 60 credits along with required major courses)* — 37

| **Total credits for BS in Marketing** | **120** |

Minor in Marketing

The marketing minor complements the skills the student gains in his or her major discipline by enhancing the knowledge and skills related to marketing situations and processes and the emerging global marketplace.

Requirements for the Minor

A minor in marketing requires the completion of 15 credits of coursework in marketing. All MRKT courses apply. It is recommended that students take MRKT 310 as the first course in the minor (if they 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, students should refer to their major and pp. 8–9.

Mathematical Sciences

Students may seek an academic minor in mathematical sciences.

Minor in Mathematical Sciences

The mathematical sciences minor complements the skills the student gains in his or her 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.

Requirements for the Minor

A minor in mathematical sciences requires the completion of 17 credits of coursework in mathematics. All MATH courses numbered 130 or above apply.

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, students should refer to their major and pp. 8–9.

Microbiology

Students may seek an academic minor in microbiology.

Minor in Microbiology

The microbiology minor complements the skills the student gains in his or her major discipline by providing a laboratory-based approach to the study of microorganisms, with applications to biotechnology, molecular and cellular biology, research and development, and public health.

Requirements for the Minor

A minor in microbiology requires the completion of 15 credits of coursework in microbiology, drawn from various disciplines as appropriate.

Students must take one course from the following:

BIOL 230	General Microbiology
BIOL 430–439	Advanced microbiology series

Students may choose the remaining courses from those above and the following:

BIOL 220	Human Genetics
BIOL 301	Human Health and Disease
BIOL 302	Bacteria, Viruses, and Health
BIOL 320	Forensic Biology
BIOL 330–339	Applied microbiology series
BIOL 350	Molecular and Cellular Biology
BIOL 400	Life Science Seminar
BIOL 486A	
or 486B	Workplace Learning in Life Science

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, students should refer to their major and pp. 8–9.

Natural Science

Students may seek an academic minor in natural science.

Minor in Natural Science

The natural science minor complements the skills the student gains in his or her major by providing an underlying scientific basis upon 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.

Requirements for the Minor

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.

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, students should refer to their major and pp. 8–9.

Nursing for Registered Nurses

Students with an active unencumbered registered nurse license and an associate's degree in nursing may seek an academic major in nursing for registered nurses.

Major in Nursing for Registered Nurses

The nursing for registered nurses major is designed to build on the clinical and practical experiences of registered nurses and provide the skills and knowledge necessary for a successful career in nursing. The curriculum covers global health, community and family nursing, nursing leadership and management, nursing research, information technology, and business principles. The program helps prepare graduates to assume leadership roles in diverse and challenging settings, be accountable for their client care, provide exceptional evidence-based nursing care to all patients, and be equipped for graduate study.

Intended Program Outcomes

The student who graduates with a major in nursing for registered nurses should be able to

- Demonstrate clinical reasoning in selecting and applying appropriate health care approaches for individuals, families, and communities along the wellness continuum.
- Evaluate, synthesize, 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 the nature of health care evolves.

Degree Requirements

A degree with a major in nursing for registered nurses requires the successful completion of 120 credits of coursework, including 30 credits for the major; 41 credits in general education requirements; and 49 credits in the minor, electives, and other degree requirements. At least 15 credits in the major must be earned in upper-level courses (numbered 300 or above).

REQUIREMENTS FOR THE NURSING FOR REGISTERED NURSES MAJOR

Coursework for a major in nursing for registered nurses includes the following lower-level coursework taken as part of an appropriate degree program at an approved community college or other institution:

- Required related courses (18 credits), which may be applied anywhere in the bachelor's degree: general microbiology with lab, human anatomy and physiology I with lab, human anatomy and physiology II with lab, introduction to psychology, introduction to sociology

Coursework for a major in nursing for registered nurses also includes the following:

- Required core courses (24 credits): NURS 300, 350, 360, 410, 420, and 460; HMGT 372; and IFSM 305
- Supplemental course (3 credits): GERO 302 or NURS 486A
- Required capstone course (3 credits): NURS 495

RECOMMENDED SEQUENCE

The following course sequence will fulfill all the requirements for the BSN in Nursing for Registered Nurses (if the student selects appropriate courses as part of the transfer coursework). Course-

work for the major is indicated by ◆. Since some recommended courses fulfill more than one requirement, substituting courses for those listed may make it necessary to take additional courses to meet degree requirements. Students should consult an advisor whenever taking advantage of other options. Information on alternate courses (where allowable) to fulfill general education requirements (in communications, arts and humanities, behavioral and social sciences, biological and physical sciences, mathematics, and interdisciplinary issues) may be found on p. 8.

Nursing for Registered Nurses Degree Courses		Credits
Required Courses from Transfer Institution		
◆ Lower-level coursework in the following areas:		18
General microbiology with lab		
Human anatomy and physiology I with lab		
Human anatomy and physiology II with lab		
Introduction to sociology		
Introduction to psychology		

First Courses *(to be taken within the first 18 credits at UMUC if not brought in transfer)*

Note: Placement tests are required for math and writing courses.

LIBS 150	Introduction to Research	1
WRTG 101	Introduction to Writing	3
or WRTG 101S	Introduction to Writing	
MATH 106	Finite Mathematics	3
	or a higher-level math course	

Introductory and General Education Courses *(to be taken within the first 30 credits)*

IFSM 201	Concepts and Applications of Information Technology *(prerequisite to major course)*	3
WRTG 293	Introduction to Professional Writing *or other writing course*	3
HUMN 100	Introduction to Humanities *or other arts and humanities course*	3
HIST 125	Technological Transformations *or other arts and humanities/historical perspective course (discipline must differ from other humanities course)*	3
COMM 202	Media and Society *or other communication, writing, or speech course*	3
CMIS 111	Social Networking and Cybersecurity Best Practices *or other computing course*	3

Additional Required Courses *(to be taken after introductory and general education courses)*

WRTG 393	Advanced Technical Writing *or other upper-level advanced writing course*	3
◆ IFSM 305	Information Systems in Health Care Organizations	3
◆ NURS 350	Global Health Issues	3

◆ HMGT 372   Legal and Ethical Issues in Health Care   3
◆ NURS 420   Advocacy and Politics in Nursing   3
◆ NURS 300   Science and Research in Nursing   3
◆ NURS 410   Applying Evidence-Based Practice in Nursing   3
◆ NURS 360   Health Assessment   3
◆ NURS 460   Family and Community Health Nursing   3
◆ GERO 302   Health and Aging   3
or NURS 486A   Workplace Learning in a Clinical Setting

Capstone Course for Major *(to be taken in the last 15 credits)*
◆ NURS 495   Leadership and Management in Nursing   3

Minor and/or Elective Courses *(to be taken in the last 60 credits along with required major courses)*   44

Total credits for BSN in Nursing For Registered Nurses   **120**

Philosophy

Students may seek an academic minor in philosophy.

Minor in Philosophy

The philosophy minor complements the skills the student gains in his or her major discipline by providing a study of the relationships between personal opinions and real-world issues faced by members of a pluralistic, open society.

Requirements for the Minor

A minor in philosophy requires the completion of 15 credits of coursework in philosophy. All PHIL courses and GVPT 101 apply. It is recommended that students take PHIL 140 and a course in critical thinking or logic, such as PHIL 110 or 170 (if they 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, students should refer to their major and pp. 8–9.

Political Science

Students may seek either an academic major or minor in political science.

Major in Political Science

A major in political science offers valuable, comprehensive knowledge of American government and global politics, helping to prepare students to analyze complex political problems and recognize potential solutions in both the public and private sectors. Students are able to gain an understanding of political structure, theory, and methodology. They can also develop their research skills and sense of intellectual property using libraries, archives, and online sources. The program provides an opportunity for students to develop their writing skills and learn the responsibility for clearly presenting and interpreting political issues using the language of the discipline.

An articulation agreement between UMUC's Undergraduate School and Graduate School allows eligible students who complete their undergraduate degree at UMUC with a major in political science to reduce their total coursework for the Master of Arts in Teaching by 12 credits (two courses) and complete both degrees with a total of 138 credits of coursework. More information is available in the graduate catalog.

Intended Program Outcomes

The student who graduates with a major in political science should be able to

- Analyze and participate in the formulation and implementation of public policy at the local, state, federal, and international levels by building consensus and using effective lobbying techniques.
- Participate in and/or influence government at all levels through an understanding of the establishment, structure, and interaction of governmental institutions.
- Use effective writing, research, analysis, advocacy, 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.

Degree Requirements

A degree with a major in political science requires the successful completion of 120 credits of coursework, including 30 credits for the major; 41 credits in general education requirements; and 49 credits in the minor, electives, and other degree requirements. At least 15 credits in the major must be earned in upper-level courses (numbered 300 or above).

REQUIREMENTS FOR THE POLITICAL SCIENCE MAJOR

Coursework for a major in political science includes the following:

- Required foundation courses (6 credits): GVPT 100 and 101
- Required statistics course: (3 credits): STAT 200
- Core courses (9 credits): GVPT 170 (or 200), 280, and 444 (or 457)
- Supplemental major courses (9 credits): Any upper-level GVPT courses
- Required capstone course (3 credits): GVPT 495

RECOMMENDED SEQUENCE

The following course sequence will fulfill all the requirements for the BS in Political Science. Coursework for the major is indicated by ◆. Since some recommended courses fulfill more than one requirement, substituting courses for those listed may make it necessary to take additional courses to meet degree requirements. Students should consult an advisor whenever taking advantage of other options. Information on alternate courses (where allowable) to fulfill general education requirements (in communications, arts and humanities, behavioral and social sciences, biological and physical sciences, mathematics, and interdisciplinary issues) may be found on p. 8.

Political Science Degree Courses		Credits
First Courses *(to be taken within the first 18 credits)*		
Note: Placement tests are required for math and writing courses.		
LIBS 150	Introduction to Research	1
WRTG 101	Introduction to Writing	3
or WRTG 101S	Introduction to Writing	
MATH 106	Finite Mathematics	3
	or a higher-level math course	
Introductory Courses *(to be taken within the first 30 credits)*		
◆ GVPT 100	Introduction to Political Science	3
BEHS 103	Technology in Contemporary Society	3
	or other behavioral and social sciences course	
BIOL 103	Introduction to Biology	4
	or other biological and physical sciences lecture and laboratory course(s)	
WRTG 293	Introduction to Professional Writing	3
	or other writing course	

IFSM 201	Concepts and Applications of Information Technology	3
or CMST 301	Digital Media and Society	
HUMN 100	Introduction to Humanities	3
	or other arts and humanities course	
◆ GVPT 101	Introduction to Political Theory	3
Foundation Courses *(to be taken within the first 60 credits)*		
HIST 125	Technological Transformations	3
	or other arts and humanities/historical perspective course (discipline must differ from other humanities course)	
◆ GVPT 170	American Government	3
or GVPT 200	International Political Relations	
ECON 103	Economics in the Information Age	3
	or other behavioral and social sciences course (discipline must differ from first)	
NSCI 100	Introduction to Physical Science	3
	or other biological and physical sciences lecture course	
◆ GVPT 280	Comparative Politics and Government	3
COMM 202	Media and Society	3
	or other communication, writing, or speech course	
◆ STAT 200	Introduction to Statistics	3
CMIS 111	Social Networking and Cybersecurity Best Practices	3
	or other computing course	
Additional Required Courses *(to be taken after introductory and foundation courses)*		
WRTG 391	Advanced Research Writing	3
	or other upper-level advanced writing course	
◆ GVPT 444	American Political Theory	3
or GVPT 457	American Foreign Relations	
◆ GVPT 401	Understanding 21st-Century Global Challenges	3
	or other supplemental major course	
◆ GVPT 403	Law, Morality, and War	3
	or other supplemental major course	
◆ GVPT 406	Global Terrorism	3
	or other supplemental major course	
Capstone Course for Major *(to be taken in the last 15 credits)*		
◆ GVPT 495	Advanced Seminar in Political Science	3
Minor and/or Elective Courses *(to be taken in the last 60 credits along with required major courses)*		49
Recommended Electives		
EDTP 600	Professional Fundamentals of Teaching and Learning	
	(for qualified students who plan to enter the MAT program at UMUC; students should note prerequisites and consult an advisor)	
EDTP 635	Adolescent Development and Learning Needs	
	(for qualified students who plan to enter the MAT program at UMUC; students should note prerequisites and consult an advisor)	
Total credits for BS in Political Science		**120**

Minor in Political Science

The political science minor complements the skills the student gains in his or her major discipline by providing systematic study of politics and government. It exposes the student to the basic concepts, theories, policies, and roles of government at local, state, and national levels in domestic and foreign settings.

Requirements for the Minor

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 students take GVPT 100, 101, or 170 as the first course in the minor (if they 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 list of all the requirements for the bachelor's degree, students should refer to their major and pp. 8–9.

Psychology

Students may seek either an academic major or minor in psychology.

Major in Psychology

The psychology major offers students a knowledge base of theory, research, and practice in psychological sciences. The curriculum enables students to use the principles of psychology and helps prepare them for graduate study or for careers in professions for which psychological training is crucial.

Intended Program Outcomes

The student who graduates with a major in psychology should be able to

- Apply major concepts, theoretical perspectives, empirical findings, and historical trends in psychology to prepare for graduate study or careers in which psychological training is relevant.
- 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, and (where possible) appropriate technology and the scientific approach to solve problems related to current and emerging trends within the domains of psychology.
- Value diversity and different perspectives, tolerate ambiguity, and act ethically to communicate appropriately with various sociocultural and international populations.

Degree Requirements

A degree with a major in psychology requires the successful completion of 120 credits of coursework, including 36 credits for the major; 41 credits in general education requirements; and 43 credits in the minor, electives, and other degree requirements. At least 18 credits in the major must be earned in upper-level courses (numbered 300 or above).

REQUIREMENTS FOR THE PSYCHOLOGY MAJOR

Coursework for a major in psychology includes the following:

- Required foundation courses (9 credits): PSYC 100 and 300 and STAT 225
- Biological psychology courses (6 credits): Chosen from BIOL 362 and PSYC 301, 310, and 341
- Professional psychology courses (6 credits): Chosen from PSYC 335, 353, 432, 436, and 437
- Social psychology courses (6 credits): Chosen from PSYC 321, 351, 354, and 361
- Supplemental major courses (6 credits): Any PSYC courses (but no more than three 1-credit courses)
- Required capstone course (3 credits): PSYC 495

RECOMMENDED SEQUENCE

The following course sequence will fulfill all the requirements for the BS in Psychology. Coursework for the major is indicated by ◆. Since some recommended courses fulfill more than one requirement, substituting courses for those listed may make it necessary to take additional courses to meet degree requirements. Students should consult an advisor whenever taking advantage of other options. Information on alternate courses (where allowable) to fulfill general education requirements (in communications, arts and humanities, behavioral and social sciences, biological and physical sciences, mathematics, and interdisciplinary issues) may be found on p. 8.

Psychology Degree Courses		**Credits**

First Courses *(to be taken within the first 18 credits)*
Note: Placement tests are required for math and writing courses.

LIBS 150	Introduction to Research	1
WRTG 101	Introduction to Writing	3
or WRTG 101S	Introduction to Writing	
MATH 106	Finite Mathematics	3
	or a higher-level math course	

Introductory Courses *(to be taken within the first 30 credits)*

HUMN 100	Introduction to Humanities	3
	or other arts and humanities course	
BIOL 103	Introduction to Biology	4
	or other biological and physical sciences lecture and laboratory course(s)	
WRTG 293	Introduction to Professional Writing	3
	or other writing course	
◆ PSYC 100	Introduction to Psychology	3
IFSM 201	Concepts and Applications of Information Technology	3
or CMST 301	Digital Media and Society	
BEHS 103	Technology in Contemporary Society	3
	or other behavioral and social sciences course	
◆ STAT 225	Introduction to Statistics for the Behavioral Sciences	3
or STAT 200	Introduction to Statistics	

Foundation Courses *(to be taken within the first 60 credits)*

ECON 103	Economics in the Information Age	3
	or other behavioral and social sciences course (discipline must differ from first)	
NSCI 100	Introduction to Physical Science	3
	or other biological and physical sciences lecture course	
HIST 125	Technological Transformations	3
	or other arts and humanities/historical perspective course (discipline must differ from other humanities course)	
CMIS 111	Social Networking and Cybersecurity Best Practices	3
	or other computing course	
COMM 202	Media and Society	3
	or other communication, writing, or speech course	
◆ PSYC 300	Research Methods in Psychology	3

Additional Required Courses *(to be taken after introductory and foundation courses)*

WRTG 391	Advanced Research Writing	3
	or other upper-level advanced writing course	
◆ PSYC 321	Social Psychology	3
	or other social psychology course for the major	
◆ PSYC 301	Biological Basis of Behavior	3
	or other biological psychology course for the major	
◆ PSYC 353	Abnormal Psychology	3
	or other professional psychology course for the major	

◆ PSYC 354	Cross-Cultural Psychology	3
	or other social psychology course for the major	
◆ PSYC 310	Sensation and Perception	3
	or other biological psychology course for the major	
◆ PSYC 436	Introduction to Clinical Psychology	3
	or other professional psychology course for the major	
◆ PSYC 415	History and Systems	3
	or other supplemental major course	
◆ PSYC 451	Tests and Measurements	3
	or other supplemental major course	

Capstone Course for Major *(to be taken in the last 15 credits)*

◆ PSYC 495	Senior Seminar in Psychology	3

Minor and/or Elective Courses *(to be taken in the last 60 credits along with required major courses)* — 43

Total credits for BS in Psychology	**120**

Minor in Psychology

The psychology minor complements the skills the student gains in his or her major discipline by investigating the nature of mind and behavior, including the biological basis of behavior, perception, memory and cognition, the influence of environmental and social forces on the individual, personality, lifespan development and adjustment, research methods, and statistical analysis.

Requirements for the Minor

A minor in psychology requires the completion of 15 credits of coursework in psychology.

Students must choose one of the following foundation courses:

PSYC 100	Introduction to Psychology
PSYC 300	Research Methods in Psychology
STAT 225	Introduction to Statistics for the Behavioral Sciences

They must also choose one biological psychology course, one social psychology course, and one professional psychology course from those listed under the requirements for the major. The remaining course may be chosen from any PSYC course.

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, students should refer to their major and pp. 8–9.

BACHELOR'S DEGREE CURRICULA

Public Safety Administration

Students may seek either an academic major or minor in public safety administration.

Major in Public Safety Administration

The major in public safety administration helps students develop the knowledge, skills, and abilities needed for leadership and administration in those occupations and organizations that provide public safety. The curriculum is designed to provide students with a global outlook, interpersonal skills, leadership abilities, an awareness of current issues, and management competencies, including strategic planning, risk management, public policy, program development and implementation, ethics, and supervision. Graduates of the program may pursue careers as public safety leaders in both the public and private sectors. Students may also supplement the comprehensive core study of public safety with a related minor in corporate security, emergency management, fire service administration, or homeland security.

Intended Program Outcomes

The student who graduates with a major in public safety administration should be able to

- Facilitate and support leadership and vision in public safety administration to manage successful programs, including intergovernmental, interagency, and interdisciplinary outreach.
- Utilize informed decision making, goal orientation, teamwork, ethical behavior, integration of assets and resources, 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 facilitate building collaborative partnerships in public safety administration.
- Identify risks and design responses, plans, training, and exercises that coordinate public and private resources to effectively meet the goals of public safety.
- Develop concise and succinct policy, plans, and procedures to support public safety administration.

Degree Requirements

A degree with a major in public safety administration requires the completion of 120 credits of coursework, including 33 credits for the major; 41 credits in general education requirements; and 46 credits in the minor, electives, and other degree requirements. At least 17 credits in the major must be earned in upper-level courses (numbered 300 or above).

REQUIREMENTS FOR THE PUBLIC SAFETY ADMINISTRATION MAJOR

Coursework for a major in public safety administration includes the following:

- Required core courses (21 credits): PSAD 302, 304, 306, 408, 410, 414, 416
- Required workplace learning course (3 credits): PSAD 486A
- Supplemental major course in accounting/finance (3 credits): Chosen from ACCT 301 and FINC 331
- Supplemental major course in business management (3 credits): Chosen from BMGT 305 and 317 and HRMN 302, 362, and 367
- Required capstone course (3 credits): PSAD 495
- Required related courses (3 credits), which may be applied anywhere in the degree: IFSM 300

RECOMMENDED SEQUENCE

The following course sequence will fulfill all the requirements for the BS in Public Safety Administration. Coursework for the major is indicated by ◆. Since some recommended courses fulfill more than one requirement, substituting courses for those listed may make it necessary to take additional courses to meet degree requirements. Students should consult an advisor whenever taking advantage of other options. Information on alternate courses (where allowable) to fulfill general education requirements (in communications, arts and humanities, behavioral and social sciences, biological and physical sciences, mathematics, and interdisciplinary issues) may be found on p. 8.

Public Safety Administration Degree Courses		Credits
First Courses *(to be taken within the first 18 credits at UMUC)*		
Note: Placement tests are required for math and writing courses.		
LIBS 150	Introduction to Research	1
WRTG 101	Introduction to Writing	3
or WRTG 101S	Introduction to Writing	
MATH 106	Finite Mathematics	3
	or a higher-level math course	
Introductory Courses *(to be taken within the first 30 credits)*		
ECON 103	Economics in the Information Age	3
	or other behavioral and social sciences course	
BIOL 103	Introduction to Biology	4
	or other biological and physical sciences lecture and laboratory course(s)	
WRTG 293	Introduction to Professional Writing	3
	or other writing course	
IFSM 201	Concepts and Applications of Information Technology	3
	(prerequisite to later course)	
HUMN 100	Introduction to Humanities	3
	or other arts and humanities course	

Foundation Courses *(to be taken within the first 60 credits)*

BEHS 103	Technology in Contemporary Society *or other behavioral and social sciences course (discipline must differ from first)*	3
NSCI 100	Introduction to Physical Science *or other biological and physical sciences lecture course*	3
HIST 125	Technological Transformations *or other arts and humanities/historical perspective course (discipline must differ from other humanities course)*	3
◆ PSAD 302	Introduction to Public Safety Administration	3
COMM 202	Media and Society *or other communication, writing, or speech course*	3
IFSM 300	Information Systems in Organizations *(related requirement for the major; also fulfills the computing requirement)*	3
◆ PSAD 304	Contemporary Public Safety Practices	3

Additional Required Courses *(to be taken after introductory and foundation courses)*

WRTG 394	Advanced Business Writing *or other upper-level advanced writing course*	3
◆ PSAD 306	Public Safety Planning	3
◆ PSAD 408	Public Safety Legal Issues and Political Policy	3
◆ PSAD 410	Public Safety Research and Technology	3
◆ PSAD 414	Public Safety Administration Ethics	3
◆ PSAD 416	Public Safety Leadership	3
◆ ACCT 301	Accounting for Nonaccounting Managers	
or FINC 331	Finance for the Nonfinancial Manager	3
◆ BMGT 317	Decision Making *or other supplemental major course in business management*	3
◆ PSAD 486A	Workplace Learning in Public Safety Administration	3

Capstone Course for Major *(to be taken in the last 15 credits)*

◆ PSAD 495	Public Safety Issues and Challenges	3

Minor and/or Elective Courses *(to be taken in the last 60 credits along with required major courses)* | | 46

Recommended Minors

Corporate security, fire service administration, emergency management, and homeland security

Total credits for BS in Public Safety Administration   **120**

Minor in Public Safety Administration

The public safety administration minor complements the skills the student gains in his or her major discipline by providing a background in the field. The minor exposes students to the principles of strategic planning, risk management, public policy, and ethics as related to public safety administration.

Requirements for the Minor

A minor in public safety administration requires the completion of 15 credits of coursework in public safety administration. All PSAD courses apply. Students should take PSAD 302 as their first course in the minor (if they 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, students should refer to their major and pp. 8–9.

Small Business Management and Entrepreneurship

Students 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 the student gains in his or her major discipline by helping students develop their ability to start and operate a successful small business and look for opportunities to create patterns of innovation within their organization. The minor is designed to help students who are planning to start or manage a small business, such as a family-owned business, a franchise, a virtual business, or a home enterprise.

Requirements for the Minor

A minor in small business management and entrepreneurship requires the completion of 15 credits of coursework related to small business management and entrepreneurship.

Students must take the following courses:

BMGT 335	Small Business Management
BMGT 364	Management and Organization Theory
FINC 328	Small Business Finance
MRKT 310	Marketing Principles

Students may choose the remaining course from the following:

BMGT 302	Franchising
BMGT 317	Decision Making
BMGT 330	Entrepreneurship and New Venture Planning
BMGT 372	Supply Chain Management
BMGT 436	Managing Early-Stage Business and Entrepreneurial Ventures
BMGT 472	Business Continuity
HRMN 300	Human Resource Management
IFSM 300	Information Resources in Organizations
MRKT 410	Consumer Behavior
MRKT 475	Selling and Sales Management

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, students should refer to their major and pp. 8–9.

Social Science

Students may seek an academic major in social science.

Major in Social Science

The social science major helps provide breadth of knowledge in the social sciences through interdisciplinary study in areas such as anthropology, behavioral sciences, gerontology, psychology, and sociology and depth through focused study in a single area. It also offers depth and focus through selection of core courses in one social science area. Graduates in social science may pursue a variety of careers in which understanding of social science issues is important, including business administration, elder care, government, health services, law enforcement, human resources, and community service.

An articulation agreement between UMUC's Undergraduate School and Graduate School allows eligible students who complete their undergraduate degree at UMUC with a major in social science to reduce their total coursework for the Master of Arts in Teaching by 12 credits (two courses) and complete both degrees with a total of 138 credits of coursework. More information is available in the graduate catalog.

Intended Program Outcomes

The student who graduates with a major in social science should be able to

- Integrate theoretical perspectives and research findings in the social sciences, using quantitative and qualitative data and applying social science research methods.
- Communicate effectively to professional and nonprofessional 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 and articulate the ethical principles and standards for professional conduct that guide the work of social scientists.
- Apply critical and creative thinking, information literacy, technology, and an interdisciplinary perspective to solve practical problems in the social sciences.

Degree Requirements

A degree with a major in social science requires the successful completion of 120 credits of coursework, including 30 credits for the major; 41 credits in general education requirements; and 49 credits in the minor, electives, and other degree requirements. At least 15 credits in the major must be earned in upper-level courses (numbered 300 or above).

REQUIREMENTS FOR THE SOCIAL SCIENCE MAJOR

Coursework for a major in social science includes the following:

- Required foundation courses (6 credits): BEHS 210 and 220
- Other foundation course (3 credits): SOCY 100, ANTH 102, PSYC 100, or GERO 100
- Statistics course (3 credits): STAT 225 (or 200 or 230)
- Required research methods course (3 credits): BEHS 300
- Core courses (9 credits in a single focus area): Chosen from upper-level ANTH, SOCY, GERO, or PSYC courses
- Supplemental major course (3 credits): Any ANTH, BEHS, GERO, GEOG, PSYC, or SOCY courses or WMST 200
- Required capstone course (3 credits): BEHS 495

RECOMMENDED SEQUENCE

The following course sequence will fulfill all the requirements for the BS in Social Science. Coursework for the major is indicated by ◆. Since some recommended courses fulfill more than one requirement, substituting courses for those listed may make it necessary to take additional courses to meet degree requirements. Students should consult an advisor whenever taking advantage of other options. Information on alternate courses (where allowable) to fulfill general education requirements (in communications, arts and humanities, behavioral and social sciences, biological and physical sciences, mathematics, and interdisciplinary issues) may be found on p. 8.

Social Science Degree Courses		Credits
First Courses *(to be taken within the first 18 credits)*		
Note: Placement tests are required for math and writing courses.		
LIBS 150	Introduction to Research	1
WRTG 101	Introduction to Writing	3
or WRTG 101S	Introduction to Writing	
MATH 106	Finite Mathematics *or a higher-level math course*	3
Introductory Courses *(to be taken within the first 30 credits)*		
Note: General education courses may not be applied to major requirements.		
ECON 103	Economics in the Information Age *or other behavioral and social sciences course*	3
BIOL 103	Introduction to Biology *or other biological and physical sciences lecture and laboratory course(s)*	4
WRTG 293	Introduction to Professional Writing *or other writing course*	3
IFSM 201	Concepts and Applications of Information Technology	3
or CMST 301	Digital Media and Society	
HUMN 100	Introduction to Humanities *or other arts and humanities course*	3
BEHS 103	Technology in Contemporary Society *or other behavioral and social sciences course (discipline must differ from first)*	3
◆ BEHS 210	Introduction to Social Sciences	3
Foundation Courses *(to be taken within the first 60 credits)*		
CMIS 111	Social Networking and Cybersecurity Best Practices *or other computing course*	3
◆ STAT 225	Introduction to Statistics for the Behavioral Sciences	3
or STAT 200	Introduction to Statistics	
or STAT 230	Introductory Business Statistics	
NSCI 100	Introduction to Physical Science *or other biological and physical sciences lecture course*	3
◆ SOCY 100	Introduction to Sociology *or other foundation course for the major*	3
HIST 125	Technological Transformations *or other arts and humanities/historical perspective course (discipline must differ from other humanities course)*	3
COMM 202	Media and Society *or other communication, writing, or speech course*	3
◆ BEHS 220	Diversity Awareness	3
Additional Required Courses *(to be taken after introductory and foundation courses)*		
WRTG 391	Advanced Research Writing *or other upper-level advanced writing course*	3
◆ BEHS 300	Research Methods in the Social Sciences	3
◆ SOCY 313	The Individual and Society *or other core course*	3
◆ SOCY 423	Minorities in the United States *or other core course in the same discipline as the first*	3
◆ SOCY 325	The Sociology of Gender *or other core course in the same discipline as the first and second*	3
◆ ANTH 346	Anthropology of Language and Communication *or other supplemental major course*	3
Capstone Course for Major *(to be taken in the last 15 credits)*		
◆ BEHS 495	Advanced Seminar in Social Sciences	3

Minor and/or Elective Courses *(to be taken in the last 60 credits along with required major courses)*   49

Recommended Electives

EDTP 600   Professional Fundamentals of Teaching and Learning
(for qualified students who plan to enter the MAT program at UMUC; students should note prerequisites and consult an advisor)

EDTP 635   Adolescent Development and Learning Needs
(for qualified students who plan to enter the MAT program at UMUC; students should note prerequisites and consult an advisor)

Total credits for BS in Social Science   **120**

Sociology

Students may seek an academic minor in sociology.

Minor in Sociology

The sociology minor complements the skills the student gains in his or her major discipline by providing a study of contemporary sociological theory and research and applying it to social issues, including globalization, social inequality, diversity, health care, education, family, work, and religion.

Requirements for the Minor

A minor in sociology requires the completion of 15 credits of coursework in sociology. All SOCY courses apply. Students should take SOCY 100 as the first course in the minor (if they 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, students should refer to their major and pp. 8–9.

Software Development and Security

Students may seek an academic major in software development and security.

Major in Software Development and Security

The major in software development and security helps provide the skills and knowledge necessary for a successful career in secure programming and application security. The curriculum focuses on developing skills in using multiple programming languages and relational databases and maintaining the security of all software-related components through the use of leading industry and government practices and recommendations. Graduates may pursue technical and leadership roles in diverse and challenging application development and security settings, including positions as software development and security analysts, software development and security managers, application and software architects, information security officers, incident responders, intrusion analysts, penetration testers, programmers, software engineers, security and code auditors, and system architects. They may also pursue graduate studies in software engineering or other cybersecurity- and computer science–related fields of study.

Intended Program Outcomes

The student who graduates with a major in software development and security should be able to

- Work individually or in teams 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

A degree with a major in software development and security requires the successful completion of 120 credits of coursework, including 33 credits for the major; 41 credits in general education requirements; and 46 credits in the minor, electives, and

other degree requirements. At least 15 credits in the major must be earned in upper-level courses (numbered 300 or above).

REQUIREMENTS FOR THE SOFTWARE DEVELOPMENT AND SECURITY MAJOR

Coursework for a major in software development and security includes the following:

- Programming language sequence (6 credits): Chosen from
  - PC/Java: CMIS 141 and 242
  - Mac/Objective-C: CMIS 115 and 215
  - PC/Microsoft: CMIS 125 and 225
- Required core courses (18 credits): CMIS 320 and SDEV 300, 325, 360, 425, and 460
- Supplemental major course (3 credits): SDEV 350 or SDEV 355
- 400-level supplemental major course (3 credits): SDEV 400 or SDEV 455
- Required capstone course (3 credits): CMSC 495

RECOMMENDED SEQUENCE

The following course sequence will fulfill all the requirements for the BS in Software Development and Security. Coursework for the major is indicated by ◆. Since some recommended courses fulfill more than one requirement, substituting courses for those listed may make it necessary to take additional courses to meet degree requirements. Students should consult an advisor whenever taking advantage of other options. Information on alternate courses (where allowable) to fulfill general education requirements (in communications, arts and humanities, behavioral and social sciences, biological and physical sciences, mathematics, and interdisciplinary issues) may be found on p. 8.

Software Development and Security Degree Courses		Credits
First Courses *(to be taken within the first 18 credits)*		
Note: Placement tests are required for math and writing courses.		
LIBS 150	Introduction to Research	1
WRTG 101	Introduction to Writing	3
or WRTG 101S	Introduction to Writing	
MATH 106	Finite Mathematics	3
	or a higher-level math course	
CMIS 102	Introduction to Problem Solving and Algorithm Design	3
	(prerequisite for later courses; also fulfills the computing requirement)	
Introductory Courses *(to be taken within the first 30 credits)*		
IFSM 201	Concepts and Applications of Information Technology	3
or CMST 301	Digital Media and Society	

HUMN 100	Introduction to Humanities	3
	or other arts and humanities course	
BIOL 103	Introduction to Biology	4
	or other biological and physical sciences lecture and laboratory course(s)	
◆ CMIS 115	Programming in Objective-C for the Mac	3
or CMIS 125	Programming in C#	
or CMIS 141	Introductory Programming	
ECON 103	Economics in the Information Age	3
	or other behavioral and social sciences course	
Foundation Courses *(to be taken within the first 60 credits)*		
WRTG 293	Introduction to Professional Writing	3
	or other writing course	
◆ CMIS 215	Programming for the iPhone and iPad	3
or CMIS 225	Developing Windows Presentation Foundation Applications Using C#	
or CMIS 242	Intermediate Programming	
BEHS 103	Technology in Contemporary Society	3
	or other behavioral and social sciences course (discipline must differ from first)	
NSCI 100	Introduction to Physical Science	3
	or other biological and physical sciences lecture course	
HIST 125	Technological Transformations	3
	or other arts and humanities/historical perspective course (discipline must differ from other humanities course)	
COMM 202	Media and Society	3
	or other communication, writing, or speech course	
◆ CMIS 320	Relational Database Concepts and Applications	3
Additional Required Courses *(to be taken after introductory and foundation courses)*		
WRTG 393	Advanced Technical Writing	3
	or other upper-level advanced writing course	
◆ SDEV 300	Building Secure Web Applications	3
◆ SDEV 325	Detecting Software Vulnerabilities	3
◆ SDEV 350	Database Security	3
or SDEV 355	Securing Mobile Applications	
◆ SDEV 360	Secure Software Engineering	3
◆ SDEV 400	Secure Programming in the Cloud	3
or SDEV 455	Risk Analysis and Threat Modeling	
◆ SDEV 425	Mitigating Software Vulnerabilities	3
◆ SDEV 460	Penetration Testing	3
Capstone Course for Major *(to be taken in the last 9 credits)*		
◆ CMSC 495	Current Trends and Projects in Computer Science	3
Minor and/or Elective Courses *(to be taken in the last 60 credits along with required major courses)*		46
Recommended Minor		
Computer science		
Total credits for BS in Software Development and Security		**120**

Speech Communication

Students may seek an academic minor in speech communication.

Minor in Speech Communication

The minor in speech communication complements the skills the student gains in his or her 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.

Requirements for the Minor

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 students take COMM 300 and SPCH 100 as the first courses for the minor (if they 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, students should refer to their major and pp. 8–9.

Terrorism and Critical Infrastructure

Students 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 the student develops in his or her major discipline by offering an understanding of the principle components of protecting both public and private critical infrastructure from acts of terrorism.

Requirements for the Minor

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	Cyber Crime and Security
CCJS 491	Institutional 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 304	Strategic Planning in 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, students should refer to their major and pp. 8–9.

Women's Studies

Students may seek an academic minor in women's studies.

Minor in Women's Studies

The women's studies minor complements the skills the student gains in his or her major discipline by providing an interdisciplinary study of the history, status, and experiences of women.

Requirements for the Minor

A minor in women's studies requires the completion of 15 credits of coursework in women's studies, chosen from the following courses:

WMST	Any courses
BEHS 220	Diversity Awareness
BEHS 343	Parenting Today
BEHS 453	Domestic Violence
BMGT 312	Gender Issues in Business
ENGL 354	American Women Writers Since 1900
ENGL 358	British Women Writers Since 1900
GERO 311	Gender and Aging
HIST 376	Women and the Family in America to 1870
HIST 377	U.S. Women's History: 1870 to 2000
PHIL 343	Sexual Morality
PHIL 346	Contemporary Sexual Ethics
PSYC 334	Psychology of Interpersonal Relationships
PSYC 338	Psychology of Gender
SOCY 325	The Sociology of Gender
SOCY 443	The Family and Society
SOCY 462	Women in the Military
SPCH 324	Communication and Gender

It is recommended that students take WMST 200 as the first course for the minor (if they 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, students should refer to their major and pp. 8–9.

ASSOCIATE OF ARTS DEGREE

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

The Associate of Arts (AA) degree requires the completion of a minimum of 60 credits, at least 15 of which must be taken through UMUC. Of these 60 credits, 35 credits must be earned in courses that fulfill the general education requirements listed below. The remaining 25 credits must satisfy the requirements of the curriculum the student has selected.

A grade point average of 2.0 or higher in all courses taken through UMUC is required. A student should complete one associate's degree before applying for another.

General Education Requirements (35 credits)

The general education requirements for the associate's degree generally correspond to those for the bachelor's degree (listed on p. 8), with the following exception: The second computing course and the upper-level advanced writing course are not required for the associate's degree.

Curriculum Requirements (25 credits)

In addition to the general education requirements, students must take 25 credits of coursework related to their educational goals. They may choose a general curriculum (described at right) or a specialized curriculum with its own particular requirements (detailed on the following pages). Students 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 UMUC must be earned in core or core-related courses for the chosen curriculum. Students who anticipate seeking a bachelor's degree should select courses that will advance that goal.

Intended Program Outcomes

The student who graduates with an Associate of Arts degree should be able to

- Utilize academic skills to transition to further academic and professional studies (if he or she is transitioning to a bachelor's degree program).
- Employ academic skills and specialized knowledge to succeed and advance in chosen career and professional fields (if he or she is completing studies at this level).

General Curriculum

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

REQUIREMENTS FOR THE GENERAL CURRICULUM

Students may choose related courses from several disciplines, explore several interests at once, or choose a variety of courses from UMUC's offerings. Students in this program accept responsibility for developing a curriculum that meets their intended learning outcomes. They are encouraged to seek assistance from academic advisors in arranging their curriculum as appropriate to their personal interests and future educational plans.

RECOMMENDED SEQUENCE

The following course sequence will fulfill all the requirements for the AA in General Studies. Since some recommended courses fulfill more than one requirement, substituting courses for those listed may make it necessary to take additional courses to meet degree requirements. Students should consult an advisor whenever taking advantage of other options. Information on alternate courses (where allowable) to fulfill general education requirements (in communications, arts and humanities, behavioral and social sciences, biological and physical sciences, mathematics, and interdisciplinary issues) may be found on p. 8.

General Curriculum Courses		Credits
First Courses *(to be taken within the first 18 credits)*		
Note: Placement tests are required for math and writing courses.		
LIBS 150	Introduction to Research	1
WRTG 101	Introduction to Writing	3
or WRTG 101S	Introduction to Writing	
MATH 106	Finite Mathematics	3
	or a higher-level math course	
Introductory Courses *(to be taken within the first 30 credits)*		
HIST 125	Technological Transformations	3
	or other arts and humanities/historical perspective course	
BIOL 103	Introduction to Biology	4
	or other biological and physical sciences lecture and laboratory course(s)	
WRTG 293	Introduction to Professional Writing	3
	or other writing course	
IFSM 201	Concepts and Applications of Information Technology	3
or CMST 301	Digital Media and Society	
ECON 103	Economics in the Information Age	3
	or other behavioral and social sciences course	

Curriculum course *(to be selected based on educational and career goals)* 3

Additional Required Courses *(to be taken after first and introductory courses)*

BEHS 103	Technology in Contemporary Society *or other behavioral and social sciences course (discipline must differ from first)*	3
NSCI 100	Introduction to Physical Science *or other biological and physical sciences lecture course*	3
HUMN 100	Introduction to Humanities *or other arts and humanities course (discipline must differ from other humanities course)*	3
COMM 202	Media and Society *or other communication, writing, or speech course*	3
Curriculum course	*(to be selected based on educational and career goals)*	3
Curriculum course	*(to be selected based on educational and career goals)*	3
Curriculum course	*(to be selected based on educational and career goals)*	3

Elective Courses *(to be chosen from any courses to complete the 60 credits for the degree)* 13

Total credits for AA with general curriculum **60**

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. Appropriate coursework for each of the specialized curricula is indicated by ◆. Students should take careful note of course prerequisites and recommended course sequences. Curricula may be available only in limited geographic areas.

Accounting Curriculum

INTENDED PROGRAM OUTCOMES

Within the overall outcomes of the AA degree in General Studies (listed on p. 76), the specialized curriculum in accounting will help students demonstrate competencies in fundamental accounting practices to transition toward a bachelor's degree in accounting and related fields.

COURSEWORK FOR THE ACCOUNTING CURRICULUM

Coursework for the accounting curriculum includes the following (students should note prerequisites and other sequencing requirements):

- Required core courses (6 credits): ACCT 220 and 221
- Additional core courses (9 credits): Any ACCT or FINC courses

- Accounting-related courses (9 credits): Chosen from any ACCT and FINC courses; BMGT 110, 364, 380, 381, and 496; CMIS 102; ECON 201 and 203; IFSM 300; MRKT 310; and STAT 200 (or STAT 230)
- Elective (1 credit): Any course related to interests and goals

RECOMMENDED SEQUENCE

The following course sequence will fulfill all the requirements for the AA in General Studies while incorporating coursework in accounting. Since some recommended courses fulfill more than one requirement, substituting courses for those listed may make it necessary to take additional courses to meet degree requirements. Students should consult an advisor whenever taking advantage of other options. Information on alternate courses (where allowable) to fulfill general education requirements (in communications, arts and humanities, behavioral and social sciences, biological and physical sciences, mathematics, and interdisciplinary issues) may be found on p. 8.

Accounting Curriculum Courses		**Credits**

First Courses *(to be taken within the first 18 credits)*
Note: Placement tests are required for math and writing courses.

LIBS 150	Introduction to Research	1
WRTG 101	Introduction to Writing	3
or WRTG 101S	Introduction to Writing	
MATH 106	Finite Mathematics *or a higher-level math course*	3
◆ BMGT 110	Introduction to Business and Management *(recommended accounting-related course for the curriculum for students with no prior business experience)*	3
◆ ACCT 220	Principles of Accounting I	3

Introductory Courses *(to be taken within the first 30 credits)*

◆ ACCT 221	Principles of Accounting II	3
ECON 201	Principles of Macroeconomics	3
or ECON 203	Principles of Microeconomics *(required for BS in accounting) or other behavioral and social sciences course*	
BIOL 103	Introduction to Biology *or other biological and physical sciences lecture and laboratory course(s)*	4
WRTG 293	Introduction to Professional Writing *or other writing course*	3
IFSM 201	Concepts and Applications of Information Technology	3
or CMST 301	Digital Media and Society	

Additional Required Courses *(to be taken after first and introductory courses)*

HUMN 100	Introduction to Humanities *or other arts and humanities requirement*	3

BEHS 103	Technology in Contemporary Society	3
	or other behavioral and social sciences course	
	(discipline must differ from first)	
NSCI 100	Introduction to Physical Science	3
	or other biological and physical sciences lecture course	
◆ A core course for the curriculum		3
HIST 125	Technological Transformations	3
	or other arts and humanities/historical perspective course	
	(discipline must differ from other humanities course)	
COMM 202	Media and Society	3
	or other communication, writing, or speech course	
◆ BMGT 380	Business Law I	3
or STAT 230	Introductory Business Statistics	
	or other accounting-related course for the curriculum	
◆ BMGT 364	Management and Organization Theory	3
	or other accounting-related course for the curriculum	
◆ A core course for the curriculum		3
◆ A core course for the curriculum		3

Elective Course *(to be chosen from any course to complete the 60 credits for the degree)*   1

Total credits for AA in General Studies with accounting curriculum   **60**

Business and Management Curriculum

INTENDED PROGRAM OUTCOMES

Within the overall outcomes of the AA degree in General Studies (listed on p. 76), the specialized curriculum in business and management will help students utilize core business concepts and principles to pursue related professional goals.

COURSEWORK FOR THE BUSINESS AND MANAGEMENT CURRICULUM

Coursework for the business and management curriculum includes the following:

- Core courses (15 credits): Chosen from BMGT 110 (required for students with no previous business experience), ACCT 220 and 221, ECON 201 and 203, and STAT 230 (or 200)
- Management-related courses (6 credits): Chosen from any ACCT, BMGT, CMIS, ECON, FINC, HMGT, HRMN, IFSM, and MRKT courses; any 3-credit CMST courses; GVPT 210; and PSYC 321 and 361
- Electives (4 credits): Any courses related to interests and goals

RECOMMENDED SEQUENCE

The following course sequence will fulfill all the requirements for the AA in General Studies while incorporating coursework in business and management. Since some recommended courses fulfill more than one requirement, substituting courses for those

listed may make it necessary to take additional courses to meet degree requirements. Students should consult an advisor whenever taking advantage of other options. Information on alternate courses (where allowable) to fulfill general education requirements (in communications, arts and humanities, behavioral and social sciences, biological and physical sciences, mathematics, and interdisciplinary issues) may be found on p. 8.

Business and Management Curriculum Courses		Credits

First Courses *(to be taken within the first 18 credits)*
Note: Placement tests are required for math and writing courses.

LIBS 150	Introduction to Research	1
WRTG 101	Introduction to Writing	3
or WRTG 101S	Introduction to Writing	
MATH 106	Finite Mathematics	3
	or a higher-level math course	
◆ BMGT 110	Introduction to Business and Management	3
	(required core course for the curriculum for students with no prior business experience; also required for BS in business administration)	

Introductory Courses *(to be taken within the first 30 credits)*

ECON 201	Principles of Macroeconomics	3
	(required for BS in business administration; strongly recommended)	
	or other behavioral and social sciences course	
BIOL 103	Introduction to Biology	4
	or other biological and physical sciences lecture and laboratory course(s)	
WRTG 293	Introduction to Professional Writing	3
	or other writing course	
IFSM 201	Concepts and Applications of Information Technology	3
or CMST 301	Digital Media and Society	
◆ ACCT 220	Principles of Accounting I	3
	(core course for the curriculum)	
HUMN 100	Introduction to Humanities	3
	or other arts and humanities course	

Additional Required Courses *(to be taken after first and introductory courses)*

◆ STAT 230	Introductory Business Statistics	3
	(core course for the curriculum)	
BEHS 103	Technology in Contemporary Society	3
	or other behavioral and social sciences course	
	(discipline must differ from first)	
◆ ACCT 221	Principles of Accounting II	3
	(core course for the curriculum)	
NSCI 100	Introduction to Physical Science	3
	or other biological and physical sciences lecture course	
◆ ECON 203	Introduction to Microeconomics	3
	(core course for the curriculum)	

HIST 125	Technological Transformations	3
	or other arts and humanities/historical perspective course
	(discipline must differ from other humanities course)
COMM 202	Media and Society	3
	or other communication, writing, or speech course
◆ Management-related course for the curriculum		3
	(course required for BS in business administration is recommended)
◆ Management-related course for the curriculum		3
	(course required for BS in business administration is recommended)

Elective Courses *(to be chosen from any courses to complete the 60 credits for the degree—courses applicable to the BS in business administration are recommended)*   **4**

Total credits for AA in General Studies with business and management curriculum	**60**

Computer Studies Curriculum

INTENDED PROGRAM OUTCOMES

Within the overall outcomes of the AA degree in General Studies (listed on p. 76), the specialized curriculum in computer studies will help students apply a selected range of fundamental computer-based skills to advance professional and career goals.

COURSEWORK FOR THE COMPUTER STUDIES CURRICULUM

Coursework for the computer studies curriculum includes the following:

- Required core course (3 credits): CMIS 102 or a programming language course
- Computer studies–related courses (12 credits): Any CMIS, CMST, CMIT, CMSC, CSIA, or IFSM courses
- Electives (10 credits): Any courses related to interests and goals

RECOMMENDED SEQUENCE

The following course sequence will fulfill all the requirements for the AA in General Studies while incorporating coursework in computer studies. Since some recommended courses fulfill more than one requirement, substituting courses for those listed may make it necessary to take additional courses to meet degree requirements. Students should consult an advisor whenever taking advantage of other options. Information on alternate courses (where allowable) to fulfill general education requirements (in communications, arts and humanities, behavioral and social sciences, biological and physical sciences, mathematics, and interdisciplinary issues) may be found on p. 8.

Computer Studies Curriculum Courses		**Credits**

First Courses *(to be taken within the first 18 credits)*
Note: Placement tests are required for math and writing courses.

LIBS 150	Introduction to Research	1
WRTG 101	Introduction to Writing	3
or WRTG 101S	Introduction to Writing	
MATH 106	Finite Mathematics	3
	or a higher-level math course	

Introductory Courses *(to be taken within the first 30 credits)*

◆ CMIS 102	Introduction to Problem Solving and Algorithm Design	3
	(required for BS in computer studies; first required core course for the curriculum)	
◆ Computer studies–related course for the curriculum		3
HUMN 100	Introduction to Humanities	3
	or other arts and humanities course	
BIOL 103	Introduction to Biology	4
	or other biological and physical sciences lecture and laboratory course	
IFSM 201	Concepts and Applications of Information Technology	3
or CMST 301	Digital Media and Society	
◆ Computer studies–related course for the curriculum		3
WRTG 293	Introduction to Professional Writing	3
	or other writing course	
ECON 103	Economics in the Information Age	3
	or other behavioral and social sciences course	

Additional Required Courses *(to be taken after first and introductory courses)*

BEHS 103	Technology in Contemporary Society	3
	or other behavioral and social sciences course (discipline must differ from first)	
NSCI 100	Introduction to Physical Science	3
	or other biological and physical sciences lecture course	
HIST 125	Technological Transformations	3
	or other arts and humanities/historical perspective course (discipline must differ from other humanities course)	
COMM 202	Media and Society	3
	or other communication, writing, or speech course	
◆ Computer studies–related course for the curriculum		3
◆ Computer studies–related course for the curriculum		3

Elective Courses *(chosen from any courses to complete 60 credits for the degree—CMIS, CMST, CSIA, IFSM, and SDEV courses that may be applied to the BS in a computing field are recommended)*   **10**

Total credits for AA in General Studies with computer studies curriculum	**60**

ASSOCIATE OF ARTS DEGREE

Criminal Justice Curriculum

INTENDED PROGRAM OUTCOMES

Within the overall outcomes of the AA degree in General Studies (listed on p. 76), the specialized curriculum in criminal justice will help students apply knowledge of the criminal justice system to advance professional and educational goals.

COURSEWORK FOR THE CRIMINAL JUSTICE CURRICULUM

Coursework for the criminal justice curriculum includes the following:

- Core courses (12 credits): Any CCJS courses
- Electives (13 credits): Any courses related to interests and goals

RECOMMENDED SEQUENCE

The following course sequence will fulfill all the requirements for the AA in General Studies while incorporating coursework in criminal justice. Since some recommended courses fulfill more than one requirement, substituting courses for those listed may make it necessary to take additional courses to meet degree requirements. Students should consult an advisor whenever taking advantage of other options. Information on alternate courses (where allowable) to fulfill general education requirements (in communications, arts and humanities, behavioral and social sciences, biological and physical sciences, mathematics, and interdisciplinary issues) may be found on p. 8.

Criminal Justice Curriculum Courses		Credits
First Courses *(to be taken within the first 18 credits)*		
Note: Placement tests are required for math and writing courses.		
LIBS 150	Introduction to Research	1
WRTG 101	Introduction to Writing	3
or WRTG 101S	Introduction to Writing	
MATH 106	Finite Mathematics	3
	or a higher-level math course	
◆ CCJS 100	Introduction to Criminal Justice	3
or CCJS 105	Introduction to Criminology	
	or other core course for the curriculum	
Introductory Courses *(to be taken within the first 30 credits)*		
ECON 103	Economics in the Information Age	3
	or other behavioral and social sciences course	
BIOL 103	Introduction to Biology	4
	or other biological and physical sciences lecture and laboratory course(s)	
WRTG 293	Introduction to Professional Writing	3
	or other writing course	
IFSM 201	Concepts and Applications of Information Technology	3
or CMST 301	Digital Media and Society	
◆ CCJS 230	Criminal Law in Action	3
	or other core course for the curriculum	
HUMN 100	Introduction to Humanities	3
	or other arts and humanities course	
Additional Required Courses *(to be taken after first and introductory courses)*		
BEHS 103	Technology in Contemporary Society	3
	or other behavioral and social sciences course (discipline must differ from first)	
NSCI 100	Introduction to Physical Science	3
	or other biological and physical sciences lecture course	
HIST 125	Technological Transformations	3
	or other arts and humanities/historical perspective course (discipline must differ from other humanities course)	
COMM 202	Media and Society	3
	or other communication, writing, or speech course	
◆ CCJS 340	Law Enforcement Administration	3
	or other core course for the curriculum	
◆ CCJS 345	Introduction to Security Management	3
	or other core course for the curriculum	
Elective Courses *(chosen from any courses to complete 60 credits for the degree—courses that may be applied to the BS in criminal justice are recommended)*		13
Total credits for AA in General Studies with criminal justice curriculum		**60**

Foreign Language Area Studies Curriculum

INTENDED PROGRAM OUTCOMES

Within the overall outcomes of the AA degree in General Studies (listed on p. 76), the specialized curriculum in foreign language area studies will help students develop intermediate foreign language skills and related cultural knowledge in a variety of personal and professional settings.

COURSEWORK FOR THE FOREIGN LANGUAGE AREA STUDIES CURRICULUM

Coursework for the foreign language area studies curriculum includes the following (see also the specific requirements for each language area):

- Language core courses (12 credits): Sequential courses in a single language, usually numbered 111–112 and 114–115 (or 211–212)
- Related area studies courses (12 credits): Any courses in the culture, history, language, literature, or government and politics of the area (see specific courses for each language area)
- Elective (1 credit): Any courses related to interests and goals

The following course sequence will fulfill all the requirements for the AA in General Studies while incorporating coursework in foreign language area studies if the appropriate core and related courses for the specific language area are selected. Since some recommended courses fulfill more than one requirement, substituting courses for those listed may make it necessary to take additional courses to meet degree requirements. Students should consult an advisor whenever taking advantage of other options. Information on alternate courses (where allowable) to fulfill general education requirements (in communications, arts and humanities, behavioral and social sciences, biological and physical sciences, mathematics, and interdisciplinary issues) may be found on p. 8.

Foreign Language Area Studies Curriculum Courses		Credits

First Courses *(to be taken within the first 18 credits)*
Note: Placement tests are required for math and writing courses.

LIBS 150	Introduction to Research	1
WRTG 101	Introduction to Writing	3
or WRTG 101S	Introduction to Writing	
MATH 106	Finite Mathematics	3
	or a higher-level math course	
◆ Language core course (numbered 111) for the curriculum		3

Introductory Courses *(to be taken within the first 30 credits)*

BIOL 103	Introduction to Biology	4
	or other biological and physical sciences lecture and laboratory course(s)	
WRTG 293	Introduction to Professional Writing	3
	or other writing course	
IFSM 201	Concepts and Applications of Information Technology	3
or CMST 301	Digital Media and Society	
HIST 125	Technological Transformations	3
	or other arts and humanities/historical perspective course	
◆ Language core course (numbered 112) for the curriculum		3
◆ Language core course (numbered 114) for the curriculum		3
ECON 103	Economics in the Information Age	3
	or other behavioral and social sciences course	
◆ Language core course (numbered 115) for the curriculum		3

Additional Required Courses *(to be taken after first and introductory courses)*

◆ Related area studies course for the curriculum		3
◆ Related area studies course for the curriculum		3
NSCI 100	Introduction to Physical Science	3
	or other biological and physical sciences lecture course	
BEHS 103	Technology in Contemporary Society	3
	or other behavioral and social sciences course (discipline must differ from first)	

◆ Related area studies course for the curriculum		3
HUMN 100	Introduction to Humanities	3
	or other arts and humanities course (discipline must differ from other humanities course)	
COMM 202	Media and Society	3
	or other communication, writing, or speech course	
◆ Related area studies course for the curriculum		3

Elective Course *(to be chosen from any courses to complete the 60 credits for the degree)* — 1

Total credits for AA in General Studies with foreign language area studies curriculum	**60**

Legal Studies Curriculum

INTENDED PROGRAM OUTCOMES

Within the overall outcomes of the AA degree in General Studies (listed on p. 76), the specialized curriculum in legal studies will help students acquire knowledge of legal systems to advance professional and educational goals.

COURSEWORK FOR THE LEGAL STUDIES CURRICULUM

Coursework for the legal studies curriculum includes the following:

- Required core courses (12 credits): LGST 101, 200, 201, and 204
- Legal studies–related courses (6 credits): Any LGST courses
- Electives (7 credits): Any courses related to interests and goals

RECOMMENDED SEQUENCE

The following course sequence will fulfill all the requirements for the AA in General Studies while incorporating coursework in legal studies. Since some recommended courses fulfill more than one requirement, substituting courses for those listed may make it necessary to take additional courses to meet degree requirements. Students should consult an advisor whenever taking advantage of other options. Information on alternate courses (where allowable) to fulfill general education requirements (in communications, arts and humanities, behavioral and social sciences, biological and physical sciences, mathematics, and interdisciplinary issues) may be found on p. 8.

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Legal Studies Curriculum Courses		Credits

First Courses *(to be taken within the first 18 credits)*
Note: Placement tests are required for math and writing courses.

LIBS 150	Introduction to Research	1
WRTG 101	Introduction to Writing	3
or WRTG 101S	Introduction to Writing	
MATH 106	Finite Mathematics *or a higher-level math course*	3

Introductory Courses *(to be taken within the first 30 credits)*

HUMN 100	Introduction to Humanities *or other arts and humanities course*	3
ECON 103	Economics in the Information Age *or other behavioral and social sciences course*	3
BIOL 103	Introduction to Biology *or other biological and physical sciences lecture and laboratory course(s)*	4
WRTG 293	Introduction to Professional Writing *or other writing course*	3
IFSM 201	Concepts and Applications of Information Technology	3
or CMST 301	Digital Media and Society	
BEHS 103	Technology in Contemporary Society *or other behavioral and social sciences course (discipline must differ from first)*	3

Additional Required Courses *(to be taken after first and introductory courses)*

HIST 125	Technological Transformations *or other arts and humanities/historical perspective course (discipline must differ from other humanities course)*	3
NSCI 100	Introduction to Physical Science *or other biological and physical sciences lecture course*	3
COMM 202	Media and Society *or other communication, writing, or speech course*	3
◆ LGST 101	Introduction to Law *(required core course for the curriculum)*	3
◆ LGST 200	Techniques of Legal Research *(required core course for the curriculum)*	3
◆ LGST 201	Legal Writing *(required core course for the curriculum)*	3
◆ LGST 204	Legal Ethics *(required core course for the curriculum)*	3
◆ LGST 320	Criminal Law and Procedures *(or other legal studies–related course for the curriculum)*	3
◆ LGST 312	Torts *(or other legal studies–related course for the curriculum)*	3

Elective Courses *(to be chosen from any courses to complete 60 credits for the degree—courses that may be applied to the BS in legal studies are recommended)* — **7**

Total credits for AA in General Studies with legal studies curriculum		**60**

Management Studies Curriculum

INTENDED PROGRAM OUTCOMES

Within the overall outcomes of the AA degree in General Studies (listed on p. 76), the specialized curriculum in management studies will help students to apply knowledge from management-related disciplines to advance professional and educational goals.

COURSEWORK FOR THE MANAGEMENT STUDIES CURRICULUM

Coursework for the management studies curriculum includes the following:

- Management-related courses (15 credits): Chosen from any ACCT, BMGT, CMIS, CMST, ECON, FINC, HMGT, HRMN, IFSM, and MRKT courses; GVPT 210; PSYC 321 and 361; STAT 230 (or 200); and WRTG 490
- Electives (10 credits): Any courses related to interests and goals

RECOMMENDED SEQUENCE

The following course sequence will fulfill all the requirements for the AA in General Studies while incorporating coursework in management studies. Since some recommended courses fulfill more than one requirement, substituting courses for those listed may make it necessary to take additional courses to meet degree requirements. Students should consult an advisor whenever taking advantage of other options. Information on alternate courses (where allowable) to fulfill general education requirements (in communications, arts and humanities, behavioral and social sciences, biological and physical sciences, mathematics, and interdisciplinary issues) may be found on p. 8.

Management Studies Curriculum Courses		Credits

First Courses *(to be taken within the first 18 credits)*
Note: Placement tests are required for math and writing courses.

LIBS 150	Introduction to Research	1
WRTG 101	Introduction to Writing	3
or WRTG 101S	Introduction to Writing	
MATH 106	Finite Mathematics *or a higher-level math course*	3
◆ BMGT 110	Introduction to Business and Management *(recommended management-related course for the curriculum for students with no prior business experience; also required for BS in business administration)*	3

Introductory Courses *(to be taken within the first 30 credits)*

BEHS 103	Technology in Contemporary Society *or other behavioral and social sciences course*	3

BIOL 103	Introduction to Biology *or other biological and physical sciences lecture and laboratory course(s)*	4
ECON 201 *or* ECON 203	Principles of Macroeconomics Principles of Microeconomics *(required for BS in management studies) or other behavioral and social sciences course (discipline must differ from first)*	3
WRTG 293	Introduction to Professional Writing *or other writing course*	3
IFSM 201 *or* CMST 301	Concepts and Applications of Information Technology Digital Media and Society	3
HUMN 100	Introduction to Humanities *or other arts and humanities course*	3

Additional Required Courses *(to be taken after first and introductory courses)*

◆ STAT 230	Introductory Business Statistics *(recommended management-related course for the curriculum; required for BS in management studies)*	3
NSCI 100	Introduction to Physical Science *or other biological and physical sciences lecture course*	3
HIST 125	Technological Transformations *or other arts and humanities/historical perspective course (discipline must differ from other humanities course)*	3
COMM 202	Media and Society *or other communication, writing, or speech course*	3
◆ BMGT 364 *or* BMGT 160	Management and Organization Theory Principles of Supervision *or other management-related course for the curriculum*	3
◆ Management-related course for the curriculum *(course that may be applied to BS in management studies is recommended)*		3
◆ Management-related course for the curriculum *(course that may be applied to BS in management studies is recommended)*		3

Elective Courses *(chosen from any courses to complete 60 credits for the degree—courses that may be applied to BS in management studies are recommended)* 10

Total credits for AA in General Studies with management studies curriculum 60

Mathematics Curriculum

INTENDED PROGRAM OUTCOMES

Within the overall outcomes of the AA degree in General Studies (listed on p. 76), the specialized curriculum in mathematics will help students employ appropriate mathematical methods and technologies to accomplish quantitative tasks in professional and educational contexts.

COURSEWORK FOR THE MATHEMATICS CURRICULUM

Coursework for the mathematics curriculum includes the following:

- Mathematics core courses (18–20 credits): MATH 130, 131, and 132 (or 140 and 141); 240 (or 246); 241; and STAT 230 (or 200)
- Mathematics-related course (3 credits): Chosen from any ACCT or FINC courses; CHEM 103 and 113; CMIS 102, 170 (or CMSC 150), and 242; ECON 201, 203, 430, and 440; any MATH course numbered 108 or higher; and any math-based physics course
- Electives (2–4 credits): Any courses related to interests and goals

RECOMMENDED SEQUENCE

The following course sequence will fulfill all the requirements for the AA in General Studies while incorporating coursework in mathematics. Since some recommended courses fulfill more than one requirement, substituting courses for those listed may make it necessary to take additional courses to meet degree requirements. Students should consult an advisor whenever taking advantage of other options. Information on alternate courses (where allowable) to fulfill general education requirements (in communications, arts and humanities, behavioral and social sciences, biological and physical sciences, mathematics, and interdisciplinary issues) may be found on p. 8.

Mathematics Curriculum Courses		Credits

First Courses *(to be taken within the first 18 credits)*
Note: Placement tests are required for math and writing courses.

LIBS 150	Introduction to Research	1
WRTG 101 *or* WRTG 101S	Introduction to Writing Introduction to Writing	3
MATH 107	College Algebra *(fulfills general education requirement in mathematics) or a higher-level math course*	3
MATH 108	Trigonometry and Analytical Geometry *(prerequisite for later courses)*	3

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Introductory Courses *(to be taken within the first 30 credits)*

HIST 125	Technological Transformations *or other arts and humanities/historical perspective course*	3
BIOL 103	Introduction to Biology *or other biological and physical sciences lecture and laboratory course(s)*	4
WRTG 293	Introduction to Professional Writing *or other writing course*	3
IFSM 201	Concepts and Applications of Information Technology	3
or CMST 301	Digital Media and Society	
ECON 201	Principles of Macroeconomics	3
or ECON 203	Principles of Microeconomics *or other behavioral and social sciences course*	
◆ MATH 130	Calculus A *(required core course for the curriculum)*	3
◆ MATH 131	Calculus B *(required core course for the curriculum)*	3
◆ MATH 132	Calculus C *(required core course for the curriculum)*	3

Additional Required Courses *(to be taken after first and introductory courses)*

NSCI 100	Introduction to Physical Science *or other biological and physical sciences lecture course*	3
BEHS 103	Technology in Contemporary Society *or other behavioral and social sciences course (discipline must differ from first)*	3
HUMN 100	Introduction to Humanities *or other arts and humanities course (discipline must differ from other humanities course)*	3
COMM 202	Media and Society *or other communication, writing, or speech course*	3
◆ MATH 241	Calculus III *(required core course for the curriculum)*	4
◆ MATH 246	Differential Equations	3
or MATH 240	Introduction to Linear Algebra *(required core course for the curriculum)*	
◆ STAT 230	Introductory Business Statistics	3
or STAT 200	Introduction to Statistics *(required core course for the curriculum)*	
◆ A mathematics-related course for the curriculum		3

Total credits for AA in General Studies with mathematics curriculum **60**

Women's Studies Curriculum

INTENDED PROGRAM OUTCOMES

Within the overall outcomes of the AA degree in General Studies (listed on p. 76), the specialized curriculum in women's studies will help students develop knowledge of the history, status, and experience of women in professional, personal, and educational contexts.

COURSEWORK FOR THE WOMEN'S STUDIES CURRICULUM

Coursework for the women's studies curriculum includes the following:

- Required core course (3 credits): WMST 200
- Women's studies–related courses (15 credits): Chosen from ARTH 199U and 478, BEHS 220, PHIL 343, and related women's studies and special topics courses (with prior approval)
- Electives (7 credits): Any courses related to interests and goals

RECOMMENDED SEQUENCE

The following course sequence will fulfill all the requirements for the AA in General Studies while incorporating coursework in women's studies. Since some recommended courses fulfill more than one requirement, substituting courses for those listed may make it necessary to take additional courses to meet degree requirements. Students should consult an advisor whenever taking advantage of other options. Information on alternate courses (where allowable) to fulfill general education requirements (in communications, arts and humanities, behavioral and social sciences, biological and physical sciences, mathematics, and interdisciplinary issues) may be found on p. 8.

Women's Studies Curriculum Courses		Credits

First Courses *(to be taken within the first 18 credits)*
Note: Placement tests are required for math and writing courses.

LIBS 150	Introduction to Research	1
WRTG 101	Introduction to Writing	3
or WRTG 101S	Introduction to Writing	
MATH 106	Finite Mathematics *or a higher-level math course*	3
◆ WMST 200	Introduction to Women's Studies: Women and Society *(required core course for the curriculum)*	3

Introductory Courses *(to be taken within the first 30 credits)*

BIOL 103	Introduction to Biology *or other biological and physical sciences lecture and laboratory course(s)*	4

WRTG 293	Introduction to Professional Writing	3
	or other writing course	
IFSM 201	Concepts and Applications of	
	Information Technology	3
or CMST 301	Digital Media and Society	
HIST 125	Technological Transformations	3
	or other arts and humanities/historical perspective course	
◆ BEHS 220	Diversity Awareness	3
	or other women's studies–related course	
	for the curriculum	
ECON 103	Economics in the Information Age	3
	or other behavioral and social sciences course	
◆ Women's studies–related course for the curriculum		3

Additional Required Courses *(to be taken after first and introductory courses)*

COMM 202	Media and Society	3
	or other communication, writing, or speech course	
◆ Women's studies–related course for the curriculum		3
NSCI 100	Introduction to Physical Science	3
	or other biological and physical sciences lecture course	
BEHS 103	Technology in Contemporary Society	3
	or other behavioral and social sciences course	
	(discipline must differ from first)	
HUMN 100	Introduction to Humanities	3
	or other arts and humanities course	
	(discipline must differ from other humanities course)	
◆ Women's studies–related course for the curriculum		3
◆ Women's studies–related course for the curriculum		3

Electives Courses *(chosen from any courses to complete 60 credits for the degree)*   7

**Total credits for AA in General Studies
with women's studies curriculum**   **60**

CERTIFICATE PROGRAMS

To help nontraditional students meet their educational goals, UMUC 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 career advancement. All are available online.

The undergraduate certificate programs generally require 16 to 18 credits. All courses for the certificate programs carry college credit and may be applied toward a degree.

In addition to the certificates listed below, some certificates are available only to active-duty military personnel and certain others who conform to special stipulations.

- Computer Networking
- Human Resource Management
- Management Foundations
- Project Management
- Spanish for Business and the Professions

REQUIREMENTS

- Students pursuing certificate programs must be admitted as UMUC students.
- All certificate coursework must be completed within two years of enrolling in the first certificate course.
- Students are responsible for notifying UMUC of their intention to complete certificate work before completion of their last course. (The application is available at *https://my.umuc.edu.*)
- Students may pursue a degree and certificate simultaneously or pursue a degree after completing the certificate, but the application for any certificate completed while in progress toward the bachelor's degree must be submitted before award of the bachelor's degree.
- Students may not use the same course toward completion of more than one certificate. In cases where the same course is required for two certificates, the student must replace that course with an approved substitute for the second certificate.
- 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.

- Certificates consisting primarily of upper-level coursework may assume prior study in that area. Students should check prerequisites for certificate courses. Prerequisites for certificate courses may be satisfied by coursework, credit by examination, or prior-learning portfolio credit, under current policies for such credit.
- At least half of the total credits for any certificate must be earned through graded coursework.
- Students must complete all required coursework for the certificate with a minimum grade of C (2.0) in all courses. Certificate courses may not be taken pass/fail.

The individual certificate coursework requirements specified in the following section are applicable to students enrolling on or after August 1, 2014. However, should certificate requirements change, students must either complete these requirements within two years of the change or fulfill the new requirements.

FOR MORE INFORMATION

More details about certificate programs, including graduation rates, median debt of students who completed the program, and other information, is available online at *www.umuc.edu/ugcertificates.*

Unless otherwise specified, course sequences for each certificate suggest but do not require that courses be taken in a prescribed order.

Computer Networking

The computer networking certificate is appropriate for students who want to work as network administrators for a business, government, or nonprofit organization. The program offers hands-on training in state-of-the art computer technology. With appropriate choice of courses, this certificate may be completed while pursuing the Bachelor of Science in Computer Networks and Security.

Overall certificate requirements are listed on p. 86.

Computer Networking
Certificate Requirements **Credits**

Note: Courses may be applied to only one certificate; some prerequisites may need to be fulfilled before beginning certificate courses.

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	369	Windows Server Installation and Configuration	3

A supporting elective chosen from any upper-level CMIT courses 3

Total credits for certificate in Computer Networking **18**

Human Resource Management

The human resource management certificate helps prepare students for supervisory and midlevel management positions in human resource management and enables employees in public- and private-sector organizations to upgrade their skills with the theory and practical knowledge necessary to advance to a higher level. The certificate helps prepare the student for the Professional in Human Resources (PHR) and Senior Professional in Human Resources (SPHR) certification examinations. With appropriate choice of major and elective courses, this certificate may be completed while pursuing the Bachelor of Science in Human Resource Management.

Overall certificate requirements are listed on p. 86.

Human Resource Management
Certificate Requirements **Credits**

Note: Courses may be applied to only one certificate; some prerequisites may need to be fulfilled before beginning certificate courses.

Three required courses:

BMGT	364	Management and Organization Theory	3
HRMN	300	Human Resource Management	3
HRMN	400	Human Resource Management: Issues and Problems	3

A labor management course chosen from the following: 3

HRMN	362	Labor Relations
HRMN	365	Conflict Management in Organizations

Two supporting electives chosen from the following: 6

BMGT	365	Organizational Leadership
BMGT	391	Supervision
BMGT	464	Organizational Behavior
BMGT	465	Organization Development and Transformation
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

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Total credits for certificate in Human Resource Management **18**

More information about certificates, including gainful employment disclosures, is available at www.umuc.edu/ugcertificates.

CERTIFICATE PROGRAMS

Management Foundations

The management foundations certificate helps prepare students for supervisory and midlevel management positions and enables employees in public- and private-sector organizations to upgrade their skills with the theory and practical knowledge necessary to advance to a higher level. With appropriate choice of courses, this certificate may be completed while pursuing the Bachelor of Science in Business Administration.

Overall certificate requirements are listed on p. 86.

Management Foundations
Certificate Requirements   **Credits**

Note: Courses may be applied to only one certificate; some prerequisites may need to be fulfilled before beginning certificate courses.

Three required courses:

BMGT	364	Management and Organization Theory	3
MRKT	310	Marketing Principles	3
HRMN	300	Human Resource Management	3

A finance course chosen from the following: 3

FINC	330	Business Finance
FINC	331	Finance for the Nonfinancial Manager

Two supporting electives chosen from the following: 6

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**

Project Management

The project management certificate helps prepare students for supervisory and midlevel management positions involving project management and team management. It enables project managers, project team members, and other employees assigned to project teams within a private- or public-sector organization to upgrade their skills with the theory and practical knowledge needed to advance to a higher level.

Overall certificate requirements are listed on p. 86.

Project Management
Certificate Requirements   **Credits**

Note: Courses may be applied to only one certificate; some prerequisites may need to be fulfilled before beginning certificate courses.

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 chosen from the following: 6

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
WRTG	494	Grant and Proposal Writing

Total credits for certificate in Project Management   **18**

More information about certificates, including gainful employment disclosures, is available at www.umuc.edu/ugcertificates.

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Spanish for Business and the Professions

The Spanish for business and the professions certificate combines language and professional study to offer students a language foundation that will help prepare them to work and communicate in a Spanish-speaking 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@umuc.edu* about a placement test.

Overall certificate requirements are listed on p. 86.

Spanish for Business and the Professions Certificate Requirements			Credits

Note: Courses may be applied to only one certificate; some prerequisites may need to be fulfilled before beginning certificate courses.

Four courses in intermediate or upper-level Spanish chosen from the following:			**12**
SPAN	211	Intermediate Spanish I	
SPAN	212	Intermediate Spanish II	
Any 300- or 400-level SPAN course taught in Spanish			

One of the following 4-credit courses in Spanish			**4**
SPAN	418	Business Spanish I	
SPAN	419	Business Spanish II	

Total credits for certificate in Spanish for Business and the Professions	**16**

More information about certificates, including gainful employment disclosures, is available at www.umuc.edu/ugcertificates.

INFORMATION ON COURSES

THE 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 either of two sets of criteria, as follows:

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

PREREQUISITES

Prerequisites, normally stated in terms of numbered courses, represent the level of knowledge a student is expected to have before enrolling in a given course. Students may be barred from enrolling in or may be removed from courses for which they do not have the necessary prerequisites. Courses listed as "corequisite" are required but may be taken at the same time. Taking courses listed as "recommended" is advisable but not absolutely required.

It is each student's responsibility to check the prerequisites listed in the course description and make certain that he or she is academically prepared to take a course. If the prerequisite course was not taken recently, the student should consult advisors or the academic department about whether he or she is sufficiently prepared to perform well in a given course. Faculty members are not expected to repeat material listed as being prerequisite.

Prerequisites may also be fulfilled by Prior Learning credit for the appropriate course, earned through course-challenge examinations or Portfolio (described on p. 214). Advisors can explain the procedures for seeking this credit. Some courses are not eligible for challenge examination or Portfolio, and students may not take course-challenge examinations or seek Portfolio credit for lower-level courses that are prerequisite to courses for which they have already received credit.

WRTG 101 (or WRTG 101S) Introduction to Writing 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, and MATH 107 or MATH 106 Finite Mathematics is prerequisite to any of the introductory statistics courses. Many other prerequisites for advanced courses may be found in the course descriptions.

Placement testing is required for enrollment in WRTG 101 and for MATH 012, 106, 107, 108, 115, 140, and 220, unless the student has taken the prerequisite course or its equivalent. More information on writing and mathematics placement tests may be obtained by calling 800-888-UMUC or visiting *www.umuc.edu/testing*. For introductory language courses, students with prior experience in the language should take a placement test to assess appropriate level. Information on language placement tests can be found by consulting the department or visiting *www.umuc.edu/languagetesting*.

KEY TO COURSE DESCRIPTIONS

Undergraduate courses that have been (or may be) offered by UMUC are listed on the following pages. They 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 courses
200–299 Primarily sophomore courses
300–399 Upper-level, primarily junior courses
400–499 Upper-level, primarily senior courses
500–599 Senior-level courses acceptable for credit toward some graduate degrees

Subject	Course Number	Title	Number of Credits
BMGT	394	Real Estate Principles II	(3)

(With BMGT 393, designed to fulfill the requirements for the Maryland licensing examination to sell real estate.) Prerequisite: BMGT 393. A continuation of the study and functional analysis and application of the legal principles relevant to the conduct of real estate transactions. The goal is to prepare to take the Maryland licensing examination to sell real estate. Topics include home ownership, environmental issues, real estate appraisals and financing, agency and brokerage agreements, seller and buyer representation, fair housing and discrimination, and settlement procedures. Students may receive credit for only one of the following courses: BMGT 394 or BMGT 398H.

1. Explanatory material, if needed, may
    - Explain course sequence, purpose, or audience.
    - Identify courses fulfilling general education requirements (listed on p. 8).
    - 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 UMUC locations.

* Only a limited number of courses are available each session in this discipline.

INFORMATION ON COURSES

The following entries describe courses offered through University of Maryland University College. Requirements pertain only to degrees conferred at UMUC. To determine how these courses may transfer and be applied toward degrees offered by other institutions, students should consult those institutions. Transferability is determined by the receiving institution. In transferring to UMUC—particularly from a community college—students should be careful not to enroll in courses that duplicate their previous studies.

Accounting

Courses in accounting (designated ACCT) may be applied as appropriate (according to individual program requirements) toward

- a major in accounting, business administration, finance, human resource management, management studies, marketing, or public safety administration;
- a minor in accounting, business administration, contract management and acquisition, or fraud investigation;
- certain UMUC graduate degree programs, where recognized as equivalent coursework (specific equivalencies are detailed in the UMUC graduate catalog); and
- electives.

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, ACCT 301, BMGT 221, MGMT 301, or MGST 301.

ACCT 301 Accounting for Nonaccounting Managers (3)

(May not be applied toward a major or minor 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 221, ACCT 301, BMGT 221, 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 involved in 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 301 or ACCT 220. A study of the principles 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, whistle-blowing, 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 and 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 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.

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, and BMGT 326.

ACCT 327 Enterprise Management Systems for Accountants (3)

Prerequisites: ACCT 221 and either ACCT 326 or IFSM 300. An overview of integrated financial and business resource information systems, with an emphasis on accounting information systems and management reporting. The objective is to research and evaluate culture, trends, and technologies that affect informational systems; use various tools and techniques to evaluate the effectiveness of informational systems; and apply project management techniques to resolve critical business issues. Practical experience in using computer-based tools (Excel, MS Project, etc.) to evaluate information systems is provided. Topics include the impact of information systems on business operations, the economic value of financial systems, financial and economic considerations in software selection, organizational culture and its impact on enterprise management systems, and implementation strategies and operational reengineering.

ACCT 328 Accounting Software (3)

Prerequisite: ACCT 326. An introduction to accounting software, focusing on evaluation of the benefits, costs, and risks of specific programs. The objective is to operate accounting software, enter data into a computerized accounting system, and evaluate accounting software. Specific PC-based software packages are used to record and analyze financial data, review the general ledger, and prepare financial statements. Accounting software is evaluated to determine its appropriateness to meet organizational needs, and executive summaries are produced to advise management of the costs and benefits of acquiring and implementing a new software package. Projects and assignments integrate the principles of accounting information systems with the evaluation of accounting software and the process of converting manual accounting data into a computerized accounting system. Students may receive credit for only one of the following courses: ACCT 328 or ACCT 398A.

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)

Prerequisites: ACCT 311 and 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 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 and ACCT 498A.

ACCT 426 Advanced Cost Accounting (3)

Prerequisite: ACCT 321. An in-depth study of advanced costing concepts that emphasizes managerial planning and control, problem solving, performance measurement, and profit maximization. The aim is to evaluate financial and nonfinancial data, conduct high-level research on contemporary issues, apply best practices and tools, and prepare and present findings to management and clients. Research, technology, and global best practices are used in evaluating financial and nonfinancial data in decision making from both an entity and an industry perspective. Leadership skills are developed through collaborative assignments. Students may receive credit for only one of the following courses: ACCT 426 or BMGT 426.

ACCT 427 Advanced Auditing (3)

Prerequisite: ACCT 422. An examination and analysis of special auditing topics. The objective is to demonstrate familiarity with regulatory and auditing standards, analyze financial statements and the business environment, apply professional and ethical standards, identify and evaluate special topics in auditing, and identify and assess significant audit risk. Topics include statistical sampling, information systems auditing, attestation standards, assurance services, and SEC compliance requirements. Various techniques are used to study auditing theory and practice; these may include the use of problem sets, case studies, computer applications, and other materials. Students may receive credit for only one of the following courses: ACCT 427 or BMGT 427.

ACCT 428 Advanced Accounting Information Systems (3)

Prerequisite: ACCT 326. A comprehensive review of advanced accounting information system (AIS) topics. The objective is to operate accounting software; research and evaluate organizational trends and technologies; determine what strengths and weaknesses exist in its accounting information system; and review accounting, auditing, and information technology standards. Topics include transactional processing concepts and core AIS transactional cycles, the impact of fraud and other threats to AIS applications and processes, advanced control frameworks used to secure AIS applications and processes, emerging technologies (such as REA modeling and XBRL) that can be used to enhance AIS applications, and strategies for implementing or upgrading AIS applications.

ACCT 433 Audit and Control of Information Technology (3)

Prerequisites: ACCT 422 and either ACCT 326 or IFSM 300. Analysis and discussion of issues related to accounting information systems. The goal is to analyze accounting information systems; research and evaluate various auditing procedures and techniques; develop an audit plan; and identify, extract, and analyze data, using appropriate computer-based tools. Topics include information technology audit guidelines and frameworks; technology-based and process-based risks and controls; automated and nonautomated audit tools; and emerging trends, such as forensic accounting.

ACCT 436 Internal Auditing (3)

(Designed to align with the Institute of Internal Auditors and 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 451 Federal Accounting Management (3)

Prerequisite: ACCT 221. Recommended: ACCT 311. An overview of federal budgeting and accounting processes. The aim is to learn to formulate, propose, manage, and execute a federal budget; execute federal grants and contracts; analyze and manage federal programs; comply with federal oversight and reporting guidance; and detect and deter fraud, waste, and abuse. Topics include the budget life cycle, formulation, execution, and program evaluation. Emphasis is on budget presentation. Discussion also covers contracts, grants, fraud, waste, and abuse. Federal Acquisition Regulations (FAR) and related rules on compliance with federal oversight are examined, especially as they relate to detection and deterrence of fraud, waste, and abuse.

ACCT 452 Federal Auditing (3)

Prerequisite: ACCT 221. Recommended: ACCT 422 or 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, maximizing 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)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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, 321, and 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

Courses in African American studies (designated AASP) may be applied as appropriate (according to individual program requirements) toward

- a minor in African American studies;
- the general education requirement in behavioral and social sciences; and
- electives.

UMUC offers only a limited number of courses each session in this discipline.

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.

Anthropology

Courses in anthropology (designated ANTH) may be applied as appropriate (according to individual program requirements) toward

- the general education requirement in the behavioral and social sciences;
- a major in social science;
- a major or minor in East Asian studies;
- a minor in diversity awareness; and
- electives.

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 biocultural patterns in humans and other primates. Students who complete both ANTH 101 and 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 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 address 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 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.

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ANTH 486A Workplace Learning in Anthropology (3)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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.

ANTH 486B Workplace Learning in Anthropology (6)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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.

Arabic

Courses in Arabic (designated ARAB) may be applied as appropriate (according to individual program requirements) toward

- the general education requirement in the arts and humanities; and
- electives.

UMUC offers a limited number of foreign language courses each session.

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.

ARAB 112 Elementary Arabic II (3)

(Not open to native speakers of Arabic.) Prerequisite: ARAB 111 or appropriate score on a placement test. A continued introduction to spoken and written modern standard Arabic. The goal is to communicate in Arabic in concrete, real-life situations using culturally appropriate language and etiquette. Practice is provided in improving pronunciation and developing the oral and written skills used in everyday communication.

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.

Art

Courses in art (designated ARTT) may be applied as appropriate (according to individual program requirements) toward

- the general education requirement in the arts and humanities;
- a minor in art;
- a major in graphic communication;
- a major or minor in humanities; and
- electives.

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)

An introduction to basic photographic procedures. Discussion covers the historical development of photography. Students may receive credit for only one of the following courses: ARTT 152 or PHOT 198.

ARTT 205 Art Appreciation (3)

An introduction to a variety of two- and three-dimensional art forms, with particular emphasis on two-dimensional arts. The goal is to examine the elements and principles of design, materials, and techniques used in personal and professional settings. Examples from different media (including illustration; painting with oils, acrylics, and watercolors; and sculpture) are used to consider form, light, color, perspective, and other elements of art.

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 220 Color Theory (3)

Prerequisite: ARTT 120. A hands-on, project-based study of color theory. The goal is to analyze and apply the vocabulary and characteristics of color. Topics include the properties, aesthetics, relationships, and applications of color. Appropriate methods and technologies are explored.

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, or 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..

ARTT 486A Workplace Learning in Art (3)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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.

ARTT 486B Workplace Learning in Art (6)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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.

Art History

Courses in art history (designated ARTH) may be applied as appropriate (according to individual program requirements) toward

- the general education requirements in the arts and humanities;
- a major in humanities;
- a minor in art history or humanities; and
- electives.

UMUC offers a limited number of ARTH courses each session. To complete a minor, students may need to take courses at other institutions in the University System of Maryland or extend the time spent fulfilling the degree requirements. Students are advised to consult an advisor before selecting this discipline.

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' work are examined. Students may receive credit for only one of the following courses: ARTH 204, AMST 204, or HUMN 204.

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 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: ARTT 205. 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 upon society. Topics include major works and artists and cultural, social, and religious movements and their impact on graphic arts.

ARTH 388 Contemporary Art (3)

Prerequisite: ARTH 373. A thematic survey of contemporary art from 1970 to the present. The goal is to actively engage and find meaning with diverse artistic expressions, including art that ranges from the sublime to the outrageous. Discussion covers contemporary art, the people who create it, and the institutions that support it.

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 sixteenth 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 as well as an evaluation of how gender affected their art and their careers.

ARTH 486A Workplace Learning in Art History (3)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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.

ARTH 486B Workplace Learning in Art History (6)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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.

Asian Studies

Courses in Asian studies (designated ASTD) may be applied as appropriate (according to individual program requirements) toward

- the general education requirements in the arts and humanities or the behavioral and social sciences (based on course content);
- a major or minor in East Asian studies; and
- electives.

ASTD 135 Introduction to Japanese Language and Culture (3)

(Formerly JAPN 105. Not open to students whose native language is Japanese. Fulfills the general education requirement in the arts and humanities. Conducted in English.) An introduction to Japanese language and culture. Emphasis is on practical application. 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)

(Formerly KORN 105. Not open to students whose native language is Korean. Fulfills the general education requirement in the arts and humanities. Conducted in English.) An introduction to Korean language and culture. Emphasis is on practical application. 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 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 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 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.

ASTD 486A Workplace Learning in East Asian Studies (3)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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.

ASTD 486B Workplace Learning in East Asian Studies (6)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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.

Astronomy

Courses in astronomy (designated ASTR) may be applied as appropriate (according to individual program requirements) toward

- the general education requirement in the biological and physical sciences;
- a minor in natural science; and
- electives.

UMUC offers only a limited number of courses each session in this discipline.

ASTR 100 Introduction to Astronomy (3)

(Not open to students who have taken or are taking any astronomy course numbered 250 or higher. For students not majoring or minoring in a science.) Prerequisite: MATH 012 or higher. 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

Courses in behavioral and social sciences (designated BEHS) may be applied as appropriate (according to individual program requirements) toward

- the general education requirement in the behavioral and social sciences;
- a major in social science;
- a minor in diversity awareness or women's studies; and
- electives.

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 consequences of technological change on our social lives, including how technology influences interpersonal relationships, work, culture, and society. Topics include how technology changes relationships, the cumulative advantages and disadvantages associated with technology, digital natives vs. 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 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.

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)

Prerequisite: BEHS 210. Recommended: STAT 225. 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 on p. 215 and online at *www.umuc.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 on p. 215 and online at *www.umuc.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 495 Advanced Seminar in Social Sciences (3)

Prerequisite: BEHS 300. 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

Courses in biology (designated BIOL) may be applied as appropriate (according to individual program requirements) toward

- the general education requirement in the biological and physical sciences;
- a major in biotechnology, investigative forensics, laboratory management, or psychology;
- a minor in biology, forensics, microbiology, natural science, or psychology; and
- electives (including related requirements for the environmental management major).

BIOL 101 Concepts of Biology (3)

(For students not majoring in a science.) 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 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.

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BIOL 102 Laboratory in Biology (1)

(For students not majoring in a science. 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 concepts underlying 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 who have completed BIOL 101 or BIOL 102. For students not majoring in a science. 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: BIOL 101–102, 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 164 Introduction to Human Anatomy and Physiology (3)

Prerequisite: BIOL 101, BIOL 105, BIOL 160, or BSCI 105. 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 ZOOL 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.

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)

(For students majoring in both science and nonscience disciplines.) Recommended: BIOL 101, BIOL 103, BIOL 105, or BSCI 105. 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: WRTG 101 (or WRTG 101S) and BIOL 101. 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 health care. Emphasis is on scientific and philosophical thinking.

BIOL 334 Vaccines and Society (3)

(For students majoring in both science and nonscience disciplines.) An overview of the development and testing of vaccines, the prevention of disease by vaccines, and the role of vaccines in society. The aim is to explore vaccine development from a scientific and historical perspective, as well as in the context of current vaccine research. The scientific, clinical, and practical aspects of vaccines and vaccination are considered with regard to the immune system. Students may receive credit for only one of the following courses: BIOL 334, BIOL 335, BIOL 398R, GNSC 398H, or MICB 388D.

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)

(For students majoring or minoring in a science.) Prerequisite: BIOL 325 or another upper-level biology course. Recommended: IFSM 201 and MATH 106 (or higher). 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.

BIOL 362 Neurobiology (3)

(For students majoring or minoring in a natural science or psychology.) Prerequisite: BIOL 101, BIOL 103, or BIOL 105. 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 health care 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 400 Life Science Seminar (3)

(For students majoring or minoring in a science.) Prerequisite: BIOL 325. Recommended: A statistics course. An examination of current topics in the life sciences through seminars and discussions based on representative publications in the recent and primary literature. The aim is to use scientific reasoning, quantitative reasoning, and knowledge of biological principles to interpret results, make inferences, and draw conclusions about research findings.

BIOL 422 Epidemiology of Emerging Infections (3)

Prerequisite: BIOL 230, 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, 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 on p. 215 and online at *www.umuc.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)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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.

Business and Management

Courses in business and management (designated BMGT) may be applied as appropriate (according to individual program requirements) toward

- a major in business administration, finance, human resource management, laboratory management, management studies, marketing, or public safety administration;
- a minor in business administration, contract management and acquisition, corporate security, diversity awareness, international business, small business management and entrepreneurship, or women's studies;
- a certificate in Human Resource Management, Management Foundations, or Project Management; and
- electives.

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 context of everyday business events and human affairs and from a historical perspective.

BMGT 305 Knowledge Management (3)

A practical approach to knowledge management. The aim is for students 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.

BMGT 307 Import and Export: Managing Global Trade (3)

(Formerly BMGT 407.) Prerequisite: BMGT 392. An exploration and analysis of managing global trade within today's fast-paced, highly interconnected global economy. The aim is to research business opportunities and make informed decisions, use public and private resources in the development of an import and export program, evaluate contractual arrangements, and assess regulations and rules to assure procedural compliance. Discussion covers international trade policy, export-import strategies (including licensing and franchising), direct investment, conflict resolution, safety and security, and current policy issues. Topics also include sales negotiation, price quotations, landed cost, standard international commercial terms, commercial financing, trade documentation, global e-commerce, transportation logistics, and compliance with import and export regulations. Students may receive credit for only one of the following courses: BMGT 307, BMGT 407, or BMGT 498S.

BMGT 312 Gender Issues in Business (3)

Prerequisite: BMGT 110 or at least two years of business and management experience. An examination of gender roles in the business environment. The objective is to identify the implications of gender differences for organizational effectiveness and understand how to transform the challenges into opportunities. Topics include changing workplace dynamics and differences in leadership and communication styles. Students may receive credit for only one of the following courses: BMGT 312, BMGT 398I, or MGMT 398I.

BMGT 317 Decision Making (3)

A practical examination of decision making. The goal is to use a proven problem-solving 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)

(Formerly FINC 310.) 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)

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.

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BMGT 364 Management and Organization Theory (3)

Prerequisites: BMGT 110 or at least two years of business and management experience. 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 be able 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 373 Nonprofit Management (3)

The aim is to describe key management concepts and apply them to the nonprofit sector. Discussion covers the management skills and capabilities that are essential for effective supervision and leadership. The challenges and opportunities faced by nonprofit organizations are reviewed. Focus is on the application of essential management skills in a nonprofit environment.

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 is 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 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 388G Effective Business Presentations (1)

An introduction to best practices and methodologies for creating and delivering effective business presentations. The aim is to prepare a presentation plan and use the plan to create and deliver a PowerPoint presentation. Topics include presentation objectives, audience analysis, storyboarding, presentation delivery techniques, best practices of developing PowerPoint slides, and selection of presentation resource materials.

BMGT 391 Supervision (3)

Prerequisite: BMGT 364. A survey of traditional and contemporary supervisory practices. The objective is to apply interpersonal communication, decision making, performance management, and other supervisory skills to the practice of management. Discussion covers the five managerial functions of a supervisor: planning, organizing, staffing, leading, and controlling. Students may receive credit for only one of the following courses: BMGT 391, BMGT 398S, or HRMN 394.

BMGT 392 Global Business (3)

Prerequisite: BMGT 110 or at least two years of business and management experience. 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 393 Real Estate Principles I (3)

(With BMGT 394, designed to fulfill the requirements for the Maryland licensing examination to sell real estate.) Recommended: ECON 203. A conceptual and functional analysis and application of legal principles and related concepts relevant to the conduct of real estate transactions concerning types of home ownership. The aim is to be ready to take the Maryland licensing examination to sell real estate. Topics include definition and scope of real estate, contracts, brokerage services, licensing and practice of salespeople, property descriptions, encumbrances, and methods and concepts of financing such as mortgages.

BMGT 394 Real Estate Principles II (3)

(With BMGT 393, designed to fulfill the requirements for the Maryland licensing examination to sell real estate.) Prerequisite: BMGT 393. A continuation of the study and functional analysis and application of the legal principles relevant to the conduct of real estate transactions. The goal is to be ready to take the Maryland licensing examination to sell real estate. Topics include home ownership, environmental issues, real estate appraisals and financing, agency and brokerage agreements, seller and buyer representation, fair housing and discrimination, and settlement procedures. Students may receive credit for only one of the following courses: BMGT 394 or BMGT 398H.

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 436 Managing Early-Stage Business and Entrepreneurial Ventures (3)

(Formerly FINC 410.) Recommended: BMGT 330. A project-driven study of financial management in a new venture environment. The goal is to evaluate, improve, and implement a business plan using financial and marketing analysis to determine advantages and risks critical to successful venture development. Discussion also covers managing resources by creating and enhancing relationships with stakeholders. Students may receive credit for only one of the following courses: BMGT 436, BMGT 461, FINC 410, or MGMT 461.

BMGT 437 International Business Law (3)

(Formerly BMGT 498P.) Prerequisite: BMGT 380. A conceptual and functional analysis and application of transnational legal principles relevant to the conduct and understanding of global business and economic transactions. The goal is to analyze business transactions, structure international business transactions, and recommend means of protecting against risk of loss. Topics include the international legal environment and process; transactional dimensions, including business forms and foreign investments; international and regional organizations; international contracts and sales; the regulation of international trade; national and international economic controls; legal aspects of management, marketing, and finance that focus on global issues related to employment, the environment, technology transfer, and trade financing; and dispute resolution. Students may receive credit for only one of the following courses: BMGT 437 or BMGT 498P.

BMGT 456 Managing Across Cultures and Borders (3)

Prerequisite: BMGT 110 or two years of management experience. 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 110 (or at least two years of business and management experience), 364, and 365. 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, polices, 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 365. 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)

Prerequisite: BMGT 110 or two years of management experience. 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 (IGOs) and nongovernmental organizations. Students may receive credit for only one of the following courses: BMGT 366, BMGT 466, or TMGT 305.

BMGT 482 Advanced Federal Contracting (3)

Prerequisites: BMGT 110 (or at least two years of business and management experience) and 339. 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, 365, and 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)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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)

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 487–488.) 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 in real-world situations. 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 and 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 and Academic Planning

Courses in career and academic planning (designated CAPL) may be applied toward

- electives.

UMUC offers only a limited number of courses each session in this discipline.

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 resume and cover letter development, interviewing techniques, negotiation strategies, and tools for ongoing career planning.

Chemistry

Courses in chemistry (designated CHEM) may be applied as appropriate (according to individual program requirements) toward

- the general education requirement in the physical and biological sciences;
- a major in investigative forensics;
- a minor in natural science; and
- electives (including related requirements for the environmental management major).

CHEM 121 Chemistry in the Modern World (3)

(For students not majoring or minoring in 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: MATH 115 (or MATH 107–108). 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

Courses in Chinese (designated CHIN) may be applied as appropriate (according to individual program requirements) toward

- the general education requirement in the arts and humanities;
- a major or minor in East Asian studies; and
- electives.

UMUC offers a limited number of foreign language courses each session.

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. Students will practice 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 high frequency Chinese characters. Practice is provided in improving pronunciation and developing 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.

Communication Studies

Courses in communication studies (designated COMM) may be applied as appropriate (according to individual program requirements) toward

- the general education requirement in communications;
- a major in communication studies or laboratory management;
- a minor in communication studies, journalism, or speech communication; and
- electives.

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, e-mails, 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 101 or WRTG 101S. An overview of today's media designed to identify complex components and relationships. 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, transactional models, advertising, and security and privacy concerns.

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COMM 300 Communication Theory (3)

(Fulfills the general education requirement in communications but is not a writing course.) Prerequisite: WRTG 101 or WRTG 101S. 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)

(Formerly COMM 379A. Fulfills the general education requirement in communications but is not a writing course.) Prerequisite: 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 380 Language in Social Contexts (3)

(Fulfills the general education requirement in communications but is not a writing course.) Prerequisite: WRTG 101 or WRTG 101S. An examination of the components of languages, with special emphasis on the English language and its origins, continued development, and use in speaking and writing. The aim is to examine categories of speech and methods of written communication from the perspective of regional and social variation. Discussion covers cultural, gender, and racial variations, as well as underlying perspectives and assumptions.

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 101 or WRTG 101S. 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 302 and an upper-level writing course. A review of qualitative and quantitative research methods in communication studies. The objective is to define and explain research methods, concepts, 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)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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 493 Strategies for Visual Communication (3)

(Access to a desktop publishing program, preferably InDesign or QuarkXPress, is required; instruction on software is not provided. Fulfills the general education requirement in communications but is not a writing course.) Recommended: CMST 310. An introduction to visual communication that explores the integration of text and graphics in formal and practical design. The goal is to develop strategic solutions to enhance communication and apply critical and creative processes to produce and evaluate design. Topics include design principles (such as color theory, typography, and content organization) and meaning and rhetoric.

COMM 495 Senior Seminar in Communication Studies (3)

Prerequisites: COMM 300 and 480 and either WRTG 391, WRTG 393, or WRTG 394. A project-based capstone study of communication. The aim is to integrate knowledge gained through previous coursework and experience and build on that conceptual foundation through integrative analysis, practical application and critical thinking. Tasks include assembling and analyzing a portfolio and completing a final project (such as a research-based report and presentation, feasibility study, feature article, or a career strategic plan) that requires conducting research and exploring ethical issues.

Computer and Information Science

Courses in computer and information science (designated CMIS) may be applied as appropriate (according to individual program requirements) toward

- the general education requirement in computing;
- a major in computer science, digital media and web technology, information systems management, or software development and security;
- a minor in computer science; and
- electives.

Students without recent experience in problem solving with computers must take CMIS 102. It is recommended that for the first two academic sessions students should not take two (or more) courses that involve programming.

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 pseudo code and participate in hands-on debugging, testing, and documenting activities. 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 115 Programming in Objective-C for the Mac (3)

(Access to a Mac computer running Leopard or higher required.) Prerequisite: CMIS 102 or prior programming experience. A hands-on introduction to object-oriented programming using Objective-C. The aim is to design, implement, test, debug, and document programs using the Xcode integrated development platform and other appropriate tools.

INFORMATION ON COURSES

CMIS 125 Programming in C# (3)

Prerequisite: CMIS 102 or prior programming experience. A hands-on introduction to object-oriented programming using C#. The aim is to design, implement, test, debug, and document programs, using the Microsoft Visual Studio integrated development environment. Topics include data types, iterative and decision statements, exception handling, input/output, and classes and objects.

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 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 170 Introduction to XML (3)

Prerequisite: CMIS 102 or CMIS 141. An introduction to the principles of Extensible Markup Language (XML) and its use in business data exchange. The goal is to design and create well-formed, validated XML documents. Discussion covers the structure, transformation, presentation, and implementation of XML technologies, including document type definitions (DTDs) and schemas. Hands-on projects and exercises are provided.

CMIS 215 Programming for the iPhone and iPad (3)

(Access to a Mac computer running Leopard or higher required.) Prerequisite: CMIS 115. A hands-on introduction to programming mobile devices. The aim is to design, implement, test, debug, document, and deploy business and graphical mobile applications.

CMIS 225 Developing Windows Presentation Foundation Applications Using C# (3)

Prerequisite: CMIS 125. A hands-on introduction to applications development using C#. The aim is to analyze, design, develop, test, and deploy rich client applications using Windows Presentation Foundation (WPF), C#, and common .Net class libraries. The XAML markup language and the event-programming model of WPF are introduced. Topics also include LINQ, data binding, and data access.

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.

CMIS 255 Mobile Phone Application Development (3)

Prerequisite: CMIS 225. A hands-on, project-based introduction to the development of applications for Windows mobile phones. The goal is to design, implement, test, debug, and document programs. Integrated development environments and tools from Microsoft are used to design, develop, and test Windows phone solutions for business, service-oriented, multimedia, and data-driven applications.

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 315 Programming in C++ (3)

Prerequisite: CMIS 141, CMIS 115, or CMIS 125. A hands-on, comprehensive study of the C++ programming language, including basic C++ syntax, arrays and strings, pointers and references, operator overloading, object-oriented concepts, inheritance and polymorphism, and templates. The aim is to design, implement, test, debug, and document C++ programs using basic computation, simple input/output (I/O) architecture, standard conditional and iterative structures, and functions. Students may receive credit for only one of the following courses: CMIS 240 or CMIS 315.

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 325 UNIX with Shell Programming (3)

Prerequisite: CMIS 141, CMIS 115, or CMIS 125. A hands-on, project-based introduction to the UNIX operating system. The aim is to use basic UNIX commands to design, create, and execute shell programs. Topics include file structures, editors, pattern-matching facilities, shell commands, and shell scripts.

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 430 Enterprise Database Administration Using Oracle (3)

Prerequisite: CMIS 420 or CMIT 261. A hands-on study of database administration. The aim is to create and manage a secure enterprise database in an effective and efficient manner. Discussion covers evaluation and implementation of security solutions, backup and recovery, use of graphic user interface (GUI) tools and scripts to monitor and maintain an enterprise database, and Oracle database architecture. Students may receive credit for only one of the following courses: CMIS 430, CMIT 381, or CMIT 381O.

CMIS 435 Computer Networking (3)

Prerequisite: CMIS 310. An investigation of the effects of computer networking on information systems. The aim is to apply skills to the optimization of network design. Topics include the seven-layer Open Systems Interconnection (OSI) reference model, physical aspects of computer networking, ethernet and TCP/IP protocols, quality of service (QoS) issues, and security implications. A project involves the design of a computer network. Students may receive credit for only one of the following courses: CMIS 435 or CMSC 440.

CMIS 440 Advanced Programming in Java (3)

Prerequisites: CMIS 242 and 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 445 Distributed Systems (3)

Prerequisite: CMIS 242. Recommended: CMIS 325. An examination of the concepts and design principles of distributed computer systems. The objective is to apply skills to the design of distributed systems. Topics include client/server architecture, distributed systems, middleware, processes, marshalling, interprocess communications, distributed objects, web services, distributed file systems, name services, time services, distributed multimedia systems, network quality of service, security, and replication. Discussion also covers standards for distributed object-oriented programming. A distributed programming project illustrates many of the concepts. Students may receive credit for only one of the following courses: CMIS 445 or CMSC 445.

CMIS 455 Requirements Development (3)

Prerequisite: CMIS 330. A study of concepts and techniques used in developing a statement of required functionality and behavior of a system. The aim is to develop a complete and accurate software specification. Discussion covers the fundamentals of elicitation, analysis, verification, validation, and documentation of software requirements. Projects using these techniques are included.

CMIS 460 Software Design and Development (3)

Prerequisite: CMIS 330. An in-depth study of the concepts and techniques for designing and developing software for large projects. The goal is to apply Unified Modeling Language (UML) to the system architectural design using established patterns and create a design document based on software requirements and organizational constraints. Discussion covers design strategies, principles, methodologies, and paradigms, as well as evaluation and representation. Topics also include architectural models, development tools and environments, implementation guidelines, and documentation. Students may receive credit for only one of the following courses: CMIS 460 or CMSC 415.

CMIS 465 Software Verification and Validation (3)

Prerequisite: CMIS 330. A study of tools, methods, and current practices for assessing the quality and correctness of software. The goal is to establish and use a development and test environment. Topics include the roles of testing and formal verification, fundamentals and formal models of program verification and validation, planning and documentation for quality assurance, methods of performing technical reviews, strategies of system testing and integration planning, and principles and practices used in conducting tests.

CMIS 485 Web Database Development (3)

Prerequisites: CMIS 141 and 320. An exploration of the current web technologies and programming language options used to interface a relational database to web servers. The aim is to build relational databases and web-based applications. Hands-on projects using web technologies such as Perl, PHP, ASP.NET, and Java are constructed and evaluated within a three-tiered architecture. Students may receive credit for only one of the following courses: CMIS 398B, CMIS 485, or CMIS 498B.

CMIS 486A Workplace Learning in Computer and Information Science (3)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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

Courses in computer information technology (designated CMIT) may be applied as appropriate (according to individual program requirements) toward

- the general education requirement in computing;
- a major in computer networks and security, cybersecurity, digital media and web technology, information systems management, or investigative forensics;
- a minor in cybersecurity;
- a certificate in Computer Networking; and
- electives.

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 (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 a structured knowledge base that enables network security professionals to discover vulnerabilities and recommend solutions for tightening network security and protecting data from potential attackers. Focus is on penetration-testing tools and techniques that security testers and ethical hackers use to protect computer networks. Students may receive credit for only one of the following courses: CMIT 321 or CMIT 398E.

CMIT 331 Wireless Network Administration (3)

(Designed to help prepare for the Certified Wireless Network Administrator certification exam. Access to a dd-wrt/tomato-compatible wireless access point/router with administration privileges is required; use of a secondary or separate router for coursework is recommended to preserve Internet connectivity.) Prerequisite: CMIT 265. A comprehensive review of the fundamentals of wireless network technologies. The objective is to design, implement, and manage secure and scalable wireless networks based on organizational requirements. Students may receive credit for only one of the following courses: CMIT 331 or CMIT 499W.

CMIT 340 Malware Analysis (3)

(Designed to help prepare for the GIAC Reverse Engineering Malware [GREM] certification exam.) Prerequisites: CCJS 321 (or CCJS 421), CMIT 320, and CMIS 102. A project-drive 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 examination 200-120) 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 364 Windows Desktop Operating Systems (3)

(Designed to help prepare for the Windows Client Configuration exam, part of MCITP Enterprise Administrator Certification.) Prerequisite: CMIT 265. An overview of the configuration and management of Windows desktop operating systems. The aim is to install, configure, manage, and troubleshoot Windows desktop operating systems. Students may receive credit for only one of the following courses: CMIT 364 or CMIT 499X.

CMIT 369 Installing and Configuring Windows Server (3)

(Designed to help prepare for the Installing and Configuring Windows Server exam, part of MCSE Server Infrastructure Certification.) Prerequisite: CMIT 265. An overview of the installation and configuration of Windows Server operating systems. The objective is to install, configure, and troubleshoot Windows Server operating systems, including domain and network services.

CMIT 370 Administering Window Server (3)

(Designed to help prepare for the Administering Windows Server exam, part of MCSE Server Infrastructure Certification.) Prerequisite: CMIT 369. An overview of the management and administration of Windows Server operating systems. The goal is to manage and troubleshoot features of Windows Server operating systems, including Active Directory, DNS, Group Policy, Desktop Security, Remote Access, Windows Deployment, and User Accounts.

CMIT 371 Configuring Advanced Windows Server Services (3)

(Designed to help prepare for the Configuring Advanced Windows Server Services exam, part of MCSE Server Infrastructure Certification.) Prerequisite: CMIT 370. An advanced review of the configuration and management of Windows Server infrastructure. The aim is to configure, manage, and troubleshoot Windows Server services, including Network Load Balancing, clustering, Dynamic Access Control, advanced network services, and advanced Active Directory roles.

CMIT 372 Designing and Implementing a Server Infrastructure (3)

(Designed to help prepare for the Designing and Implementing a Server Infrastructure exam, part of MCSE Server Infrastructure Certification.) Prerequisite: CMIT 371. A comprehensive study of the knowledge and skills necessary to plan, design, and deploy the physical and logical Windows Server infrastructure. The objective is to design Active Directory, Network Infrastructure Services, and Network Access Services.

CMIT 373 Implementing an Advanced Server Infrastructure (3)

(Designed to help prepare for the Implementing an Advanced Server Infrastructure exam, part of MCSE Server Infrastructure Certification.) Prerequisite: CMIT 372. A comprehensive study of the knowledge and skills necessary to plan and implement the advanced features of a Windows Server infrastructure. The goal is to plan and implement highly available enterprise infrastructure and server virtualization infrastructure and identity and access solutions.

CMIT 376 Windows Network Infrastructure (3)

(Formerly CMIT 376M. Designed to help prepare for the Windows Server Network Infrastructure exam, part of MCITP Server Administrator and MCITP Enterprise Administrator Certifications.) Prerequisite: CMIT 368 or CMIT 369. Development of the knowledge and skills necessary to install, configure, manage, and support the Windows Server network infrastructure. The objective is to configure network addressing, name resolution, network access, and file and print services, as well as to proactively monitor and manage the Windows Server network infrastructure. Students may receive credit for only one of the following courses: CMIT 376 or CMIT 376M.

CMIT 377 Windows Directory Services Infrastructure (3)

(Designed to help prepare for the Windows Server Active Directory exam, part of MCITP Server Administrator and MCITP Enterprise Administrator Certifications.) Prerequisite: CMIT 368 or 369. Development of the knowledge and skills necessary to install, configure, manage, and support the Windows Directory Services infrastructure. The goal is to configure, deploy, and maintain Windows Directory Services infrastructure and Domain Name System (DNS). Students may receive credit for only one of the following courses: CMIT 377 or CMIT 377M.

CMIT 378 Windows Server Applications Infrastructure (3)

(Designed to help prepare for the Microsoft Windows Applications Infrastructure exam, part of MCITP Enterprise Administrator Certification.) Prerequisite: CMIT 376. A study of the various Windows Server application services as they relate to supporting business needs. The aim is to deploy, configure, and secure Windows Server application services, including web, terminal, and file services.

CMIT 391 Linux System Administration (3)

(Designed to help prepare for the Linux Profession Institute Certification 1 [LPIC-1] 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 424 Digital Forensics Analysis and Application (3)

(Designed to help prepare for the Certified Computer Examiner [CCE] certification exam.) Prerequisites: CCJS 421 or both CCJS 321 and CMIT 320 (or CompTIA Security+ Certification). 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 499S or CMIT 425.

CMIT 440 Mobile Forensics (3)

(Designed to help prepare for the Mobile Forensics Certified Examiner [MFCE] 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 450 Designing Cisco Networks (3)

(Designed to help prepare for the Cisco Certified Design Associate Examination 640-863.) Prerequisite: CMIT 350. An advanced study of network design using Cisco Systems technologies. The objective is to identify Cisco products, local and wide area network (LAN and WAN) technologies, routing and bridging protocols, wireless and VoIP (voice over Internet protocol), and Cisco IOS software features that meet customer requirements for performance, capacity, and scalability in small- to medium-sized networks. Topics include switched and routed LAN and WAN designs. Students may receive credit for only one of the following courses: CAPP 398C, CMIT 450, or CMIT 499C.

CMIT 451 Implementing Cisco IP Routing (3)

(Designed to help students prepare for the Cisco 642-902 ROUTE [Implementing Cisco IP Routing] Exams.) Prerequisite: CMIT 350. A comprehensive study of the implementation of a routed network using Cisco Systems technologies. The goal is to use advanced IP routing and scalability solutions to increase the number of routers and sites without redesigning the LAN or WAN. Topics include configuration of secure routing solutions, configuration and troubleshooting of various routed environments (access, distributed, and core), and management of access and control. Students may receive credit for only one of the following courses: CMIT 451 or CMIT 499E.

CMIT 452 Implementing Cisco IP Switched Networks (3)

(Designed to help students prepare for the Cisco 642-813 SWITCH [Implementing Cisco IP Switched Networks] Exams.) Prerequisite: CMIT 350. A comprehensive study of switched IP networks using Cisco Systems technologies. The aim is to plan, configure, and verify the implementation of complex enterprise switching solutions using Cisco's campus enterprise architecture. Topics include secure integration of VLANs (virtual local area networks), WLANs (wireless local area networks), and voice and video into campus networks. Students may receive credit for only one of the following courses: CMIT 452 or CMIT 499F.

CMIT 453 Troubleshooting and Maintaining Cisco IP Networks (3)

(Formerly CMIT 499G. Designed to help students prepare for the Cisco 642-832 TSHOOT [Troubleshooting and Maintaining Cisco IP Switched Networks] Exams.) Prerequisites: CMIT 451 and 452. A comprehensive study of methods for troubleshooting and managing switched IP networks using Cisco Systems technologies. The objective is to plan and perform regular network maintenance and diagnose and resolve complex network problems quickly and effectively. Discussion covers technology-based practices and a systematic ITIL (information technology infrastructure library)–compliant approach to perform network troubleshooting and maintenance. Students may receive credit for only one of the following courses: CMIT 453 or CMIT 499G.

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 471 Windows Server Enterprise Administration (3)

(Designed to help prepare for the Microsoft Windows Server Enterprise Administrator exam, part of MCITP Enterprise Administrator Certification.) Prerequisites: CMIT 377 and 378. A comprehensive study of the planning, design, and management of a Windows server infrastructure in an Enterprise environment. The aim is to plan and design directory services, Domain Name Systems (DNS), remote access, security policies, and virtualization infrastructure to support business goals.

CMIT 486A Workplace Learning in Computer and Information Science (3)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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 Security (3)

(Intended as a final capstone course to be taken in a student's last 9 credits.) Prerequisites: CMIT 320, 350, and 369 (or 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

Courses in computer science (designated CMSC) may be applied as appropriate (according to individual program requirements) toward

- the general education requirement in computing;
- a major in computer science, digital media and web technology, information systems management, or software development and security;
- a minor in computer science; and
- electives.

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 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 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)

Prerequisites: CMSC 150 and 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 430 Theory of Language Translation (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 451 Design and Analysis of Computer Algorithms (3)

Prerequisites: CMSC 150 and 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.

CMSC 486A Workplace Learning in Computer Science (3)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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): Either CMSC 330 and 335, CMIS 320 and 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

Courses in computer studies (designated CMST) may be applied as appropriate (according to individual program requirements) toward

- the general education requirement in computing;
- a major in digital media and web technology or information systems management;
- a minor in digital media and web technology; and
- electives.

CMST 290 Introduction to Interactive Design (3)

An introduction to the principles, practices, techniques, and theories that govern the use of programming languages in the design and development of digital media. The objective is to effectively use proven programming theory to support digital media design for print, web, and mobile devices. Topics include the logic of constructing a computer program, the practical aspects of integrating program modules as a unified whole, the use of algorithms as an approach to problem solving, and the basic features of object-oriented languages. Projects involve creation of pseudo code and actual code.

CMST 295 Fundamentals of Digital Media (3)

An introduction to 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 the 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.

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 306 Introduction to Visual Basic .NET Programming (3)

Prerequisite: CMST 290 or CMIS 102. A hands-on, project-based introduction to developing object-oriented, event-driven web and desktop applications using the Visual Basic programming language in the .NET environment. The objective is to successfully write, test, debug, and execute Visual Basic .NET programming code to create visually oriented, event-driven desktop and web applications. Topics include objects, events, variables, looping, data input/output, form design, sequencing of operation, interface design, and debugging. Discussion also covers specifications and requirements, documentation, and determination of performance relative to specification.

CMST 310 Fundamentals of Electronic Publishing (3)

Prerequisite: IFSM 201 or CMST 103. Recommended: CMST 290 and 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)

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 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 342 Principles of Multimedia II (3)

Prerequisite: CMST 341. Further hands-on project-based study of multimedia development. The objective is to use scripting with Adobe ActionScript to develop products that integrate sound, video, animation, and images for display in multiple media formats using Adobe Flash. Topics include storyboarding, web design, animation, project management, and ethical design.

CMST 351 Motion Graphics I (3)

Prerequisites: CMST 320 and 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, CMIS 102, IFSM 201, or CMST 103. 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 Extensible HyperText Markup Language (XHTML) 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.

CMST 388 Fundamentals of JavaScript (3)

Prerequisite: CMST 386. A hands-on, project-based study of JavaScript using a structured programming approach to build dynamic, interactive webpages. The goal is to use client-side JavaScript to create interactive, cross-browser-compatible webpages 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 398J or CMST 388.

CMST 416 Advanced Visual Basic .NET Programming (3)

Prerequisite: CMST 306. A hands-on, project based, structured programming approach for building dynamic, interactive web applications using the Visual Basic .NET application development environment. The aim is to use sophisticated event-driven programming techniques to develop and deploy web-based programming applications that interface with current database technologies. Emphasis is on programming concepts, tools, methods, and application design and development. Practical opportunities to design and develop complete applications integrating multiple features of the Visual Basic .NET programming language are provided.

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.

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CMST 429 3D Modeling (3)

Prerequisites: CMST 320 and 325. A hands-on, project-based introduction to 3D modeling. The aim is to use professional-level software to create and manipulate models in three-dimensional space to render high-definition, photo-realistic 3D scenes and images using standard modeling methods. Topics include extrusion, lathing, sweeping, lofting, lighting, texture, and NURBS (non-uniform rational b-splines).

CMST 449 3D Animation (3)

Prerequisite: CMST 429. A hands-on, project-based introduction to 3D animation and continued study of 3D modeling concepts. The goal is to use professional-level software to create and manipulate models in three-dimensional space along a timeline to render high-definition 3D animations suitable for use in interactive applications, the web, gaming, and other production environments. Emphasis is on applying movement to 3D creations. Discussion covers the fundamental principles of animation. Topics also include key framing, rigging, cycles, and deformers.

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 451 Motion Graphics II (3)

Prerequisite: CMST 351. Advanced hands-on study of the concepts, techniques, and principles of digital video and motion graphics effects using Adobe After Effects. The aim is to identify requirements for advanced video effects, conceptualize the end result, plan and storyboard the digital video effect, and execute it using advanced tools and techniques following the postproduction process. Discussion covers advanced concepts, tools, and techniques used to create professional two- and three-dimensional motion graphics and digital visual effects for film, video, multimedia, and the web. Topics include storyboarding, importing, previewing, layering, adjustments, and rendering. Advanced effects such as key framing, transformations, 3D techniques, particle effects, expressions, and motion tracking are also covered.

CMST 455 Introduction to Digital Video Editing (3)

A hands-on, project-based introduction to nonlinear digital video editing. The aim is to use video editing software to create nonlinear digital video products using sound principles, techniques, and tools, for delivery across multiple platforms. Topics include planning, storyboarding, adding special effects, incorporating sound, and publishing.

CMST 460 Web Application Development Using ColdFusion (3)

(Formerly CMST 498F.) Prerequisite: CMST 388. A structured approach to building and maintaining dynamic and interactive web applications. The objective is to plan, design, develop, document, and test professional, dynamic web applications. Emphasis is on structured, modular application design and development. Topics include data-driven interactivity, mitigation of security risks, privacy issues, and code frameworks. Students may receive credit for only one of the following courses: CMST 460 or CMST 498F.

CMST 463 Web Application Development Using PHP/MySQL (3)

Prerequisite: CMST 388. A hands-on, project-based study of web application development using the PHP scripting language and MySQL databases. The goal is to create web applications that adhere to industry standards and minimize security risks. Topics include PHP scripting, data-driven interactivity, writing secure PHP programs, privacy issues, and code frameworks. Programming projects are included.

CMST 486A Workplace Learning in Computer Studies (3)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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 Web Application Development Using AJAX (3)

Prerequisite: CMST 388. A hands-on, project-based study of web application development using AJAX (Asynchronous JavaScript and XML) techniques. The aim is to create cross-browser compatible web applications that adhere to industry standards and minimize security risks. Topics include AJAX libraries, user interfaces, accessibility, usability, and security. Programming projects 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 and 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 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

Courses in criminology/criminal justice (designated CCJS) may be applied as appropriate (according to individual program requirements) toward

- the general education requirement in the behavioral and social sciences (**Note:** Only CCJS 100, 105, 350, 360, 453, and 461 apply);
- a major in criminal justice, computer networks and security, cybersecurity, or investigative forensics;
- a minor in African American studies, corporate security, criminal justice, cybersecurity, forensics, fraud investigation, terrorism and critical infrastructure;
- certain UMUC graduate degree programs where recognized as equivalent coursework (specific equivalences are detailed in the UMUC graduate catalog); and
- electives.

Students who previously received credit for courses in the disciplines of criminology (courses designated CRIM) or criminal justice (courses designated CJUS) may not receive credit for comparable courses designated CCJS.

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.

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 201 Introduction to Corrections (3)

Prerequisite: CCJS 100 or CCJS 105. An introduction to corrections in the United States, emphasizing the history and theories of confinement and its alternatives. The aim is to analyze contemporary issues relevant to corrections, such as political relations, training and certification of personnel, Constitutional rights, and the handling of special populations. Discussion also examines organizational culture and structure and the management of operations and personnel within corrections environments.

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 101, CCJS 100, 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 340. 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.

CCJS 342 Crime Scene Investigation (3)

Prerequisite: CCJS 101, CCJS 100, 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 370 Race, Crime, and Criminal Justice (3)

Prerequisite: CCJS 100 or CCJS 105. Recommended: CCJS 230. A historical and theoretical study of the role and treatment of racial/ethnic minorities in the criminal justice system. The objective is to identify and apply appropriate preventative measures and master the aspects of the field of victimology.

CCJS 380 Ethical Behavior in Criminal Justice (3)

Prerequisite: CCJS 100 or CCJS 105. Recommended: CCJS 230. A survey of basic principles relating to 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 385 Health and Mental Health in Corrections (3)

Prerequisite: CCJS 100 or CCJS 105. Recommended: CCJS 230. An examination of the current challenges associated with providing adequate physical and mental health care to criminal offenders within various correctional environments. The objective is to be able to assess and evaluate the medical and mental health needs of inmates, evaluate and allocate medical and mental health resources, and create operational and reentry plans. Topics include the deinstitutionalization of mental health hospitals, the growing number of aging inmates, legal precedents that determine standards of care, mental health treatment and pharmacological approaches, and the importance of reentry coordination.

CCJS 390 Cyber Crime and Security (3)

(Formerly CCJS 496.) Prerequisite: CCJS 100, CCJS 101, CCJS 105, or CSIA 301. 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 496 or CCJS 498C.

CCJS 415 Advanced Intelligence Analysis (3)

Prerequisite: CCJS 100 or CCJS 105. Recommended: CCJS 230. An advanced examination of intelligence analysis for national/homeland security and law enforcement applications. The causes of analytical failures (such as those that resulted in Pearl Harbor and 9/11) are explored. The goal is use of critical thinking techniques, including target-centric modeling, decomposition of complex problems, hypothesis testing, and structuring an analysis. Discussion also covers the evaluation of sources of information, the influence of group dynamics and bias, effective communication of analytical results, and data mining and visualization techniques.

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CCJS 416 Analytical Strategies for Law Enforcement (3)

Prerequisite: CCJS 311. The application of intelligence-related products to domestic law enforcement. The objective is to assess intelligence reports and channel them to appropriate internal and external stakeholders to solve public safety–related problems. Discussion covers the components of a viable intelligence report and how such reports can be used for strategic and tactical planning.

CCJS 420 Medical and Legal Investigations of Death (3)

Prerequisite: CCJS 101, CCJS 100, 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 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 432 Law of Corrections (3)

Prerequisite: CCJS 100 or CCJS 105. A review of the law of corrections, from the pretrial or sentenced commitment of an offender through confinement to the release of the offender from the sentence. The aim is to analyze sources of legal responsibility; evaluate those that are applicable to the administration or operation of a correctional unit; and transform legal text into policy, procedures, and directives. Topics include the sources of the law of corrections and the requirements imposed by law for general conditions of confinement, special populations of offenders, medical and mental health treatment, searches and seizures, use of force, expression of religious beliefs, and reentry to the community.

CCJS 434 Correctional Reentry and Transition (3)

Prerequisite: CCJS 100 or CCJS 105. Recommended: CCJS 230. An examination of the historical, political, and public policies associated with the transition of prisoners from incarceration to release into the community. The objective is to identify and evaluate prisoner reentry initiatives that pose the best scenarios for preventing recidivism. Discussion covers the organizational, budgetary, and philosophical challenges associated with successful reentry planning. Topics also include offender assessment and classification, evidence-based treatment approaches, community supervision models, best practices, and community partnerships.

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 453 White-Collar Crime (3)

(Fulfills the general education requirement in behavioral and social sciences.) Prerequisite: CCJS 100. Recommended: CCJS 105 and 230. An examination of white-collar crime—a serious offense that causes far more financial harm than traditional predatory crime and criminals. The objective is to analyze complex organizational policies, procedures, records, and documents to identify and investigate white-collar crime. Topics include the types of white-collar crime, the people who perpetrate these crimes, and the measures governmental enforcement agencies take in response. Discussion also covers the roles that investigation, law, regulation, compliance, technology, and audit play in an attempt to prevent, detect, investigate, and mitigate this type of criminal fraud.

CCJS 461 Psychology of Criminal Behavior (3)

Prerequisite: CCJS 100, CCJS 101, or CCJS 105. An overview of the biological, environmental, and psychological factors that underlie criminal behavior. The goal is to analyze psychological disorders and explain their relationship to and legal impact on criminal behavior. Discussion covers the characteristics of criminal behavior and the influence of biophysiology and stress on the commission of various crimes. Topics include patterns of maladjustment, disorders of the personality, psychoses, the connection between aggression and violent crime, sexual deviations and crimes that are sexually motivated, and the abuse of alcohol and drugs. Students may receive credit for only one of the following courses: CCJS 461 or CRIM 455.

CCJS 486A Workplace Learning in Criminal Justice (3)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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 491 Institutional Security (3)

Prerequisite: CCJS 100 or CCJS 105. Recommended: CCJS 230. A review of historical and current security management concepts, issues, and practices in organizations. The integration of security concerns with other aspects of organizational management is examined. The aim is to evaluate and employ security management strategies and techniques to best protect organizational assets. Students may receive credit for only one of the following courses: CCJS 491 or CCJS 498E.

CCJS 494 Leadership in Criminal Justice (3)

Prerequisite: CCJS 100 or CCJS 105. Recommended: CCJS 345, 340, and 497. A comprehensive study of leadership as an essential component within a functional and effective criminal justice agency. Case studies and exercises are used to examine how major theories of leadership are applied to the various components of the criminal justice system. Emphasis is on leadership approaches to solving practical problems in a criminal justice environment. Self-assessment of leadership readiness and reflection on areas for growth are used as strategies to improve leadership ability.

CCJS 495 Issues in Criminal Justice (3)

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, 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

Courses in cybersecurity (designated CSIA or CSEC) may be applied as appropriate (according to individual program requirements) toward

- a major in cybersecurity, digital media and web technology, information systems management, or investigative forensics;
- a minor in cybersecurity;
- certain UMUC graduate degree programs, where recognized as equivalent coursework (specific equivalences are detailed in the UMUC graduate catalog); and
- electives.

CSIA 301 Foundations of Cybersecurity (3)

Prerequisite: CMIS 102. A comprehensive introduction to the protection of business information and the systems that support business processes. The objective is to identify common threats and attacks employed against web-accessible applications, analyze the role of security models and architectures, explain the role of cryptography, and analyze issues related to security management and network security.

CSIA 303 Foundations of Information System Security (3)

(Formerly IFSM 430.) Prerequisite: CSIA 301. A survey of various means of establishing and maintaining a practical cyber and information security program to protect key organizational assets. The aim is to develop an information security program that is aligned with organizational strategy and to evaluate and recommend information and security technologies to support the information security program. Discussion covers the integration of confidentiality, integrity, and availability into an organization's security program through the use of physical and logical security controls. Topics include data protection, telecommunications systems, applications, and emerging technologies. Threats and vulnerabilities are assessed to determine the level of risk. Students may receive credit for only one of the following courses: CSIA 303, IFSM 430, IFSM 433, or IFSM 498N.

CSIA 412 Security Policy Analysis (3)

Prerequisite: CSIA 303. A study of various aspects of information assurance and cybersecurity policy planning in an organizational context. The aim is to examine key analysis procedures, such as security requirements analysis and risk assessments, to determine their roles in policy formation. Topics include the impact of current legislation, judicial decisions, and government regulations directing the focus of policy formulation. Projects include generating an information security profile for an organization.

CSIA 413 Security Policy Implementation (3)

Prerequisite: CSIA 412. A study of information security (IS) performance standards and policy implementation for IS system administrators. The goal is to analyze the application of security policy and security assessment findings to security procedures and processes. Topics include contents of a security policy; general procedures related to secure use of data; general awareness; training and education plans; and general countermeasures and safeguards, including access controls, auditing, management oversight, and configuration management.

CSIA 459 Evaluating Emerging Technologies (3)

(Formerly IFSM 459). Prerequisites: CMIT 320 and CSIA 303. 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. Students may receive credit for only one of the following courses: CSIA 459 or IFSM 459.

CSIA 485 Practical Applications in Cybersecurity Management (3)

(Formerly IFSM 485. Intended as a final capstone course to be taken in a student's last 6 credits.). Prerequisites: CMIT 320 and CSIA 413. A study of cybersecurity 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 protect an organization's critical information and assets by ethically integrating cybersecurity best practices and risk management throughout an enterprise. Emerging issues in cybersecurity are considered.

CSIA 486A Workplace Learning in Cybersecurity (3)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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.

CSEC 620 Human Aspects in Cybersecurity: Ethics, Legal Issues, and Psychology (6)

(For cybersecurity majors only. May also be applied to the Master of Science in Cybersecurity or Cybersecurity Policy at UMUC as equivalent to CSEC 620, if completed with a grade of B or better.) Prerequisites: 18 credits of coursework in the major, including CSIA 485, and a minimum GPA of 3.0 in the major at UMUC. An examination of the human aspects in cybersecurity. Topics include ethics, relevant laws, regulations, policies, standards, psychology, and hacker culture. Emphasis is on the human element and the motivations for cyber crimes. Analysis covers techniques to prevent intrusions and attacks that threaten organizational data.

CSEC 630 Prevention and Protection Strategies in Cybersecurity (6)

(For cybersecurity majors only. May also be applied to the Master of Science in Cybersecurity at UMUC as equivalent to CSEC 630, if completed with a grade of B or better.) Prerequisites: 24 credits of coursework in the major, including CSIA 520, and a minimum GPA of 3.0 in the major at UMUC. An in-depth study of the theories and practices for prevention of cyber attacks. Countermeasures discussed include training, encryption, virtual private networks, policies, practices, access controls, secure systems development, software assurance arguments, verification and validation; firewall architectures, anti-virus, patching practices, personnel security practices, and physical security practices. Topics also include business continuity plans and disaster recovery plans. Strategies for large-scale prevention, such as critical infrastructure protection, international collaboration, and law enforcement, are examined.

CSEC 635 National Cybersecurity Policy and Law (6)

(For cybersecurity majors only. May also be applied to the Master of Science in Cybersecurity Policy at UMUC as equivalent to CSEC 635, if completed with a grade of B or better.) Prerequisites: 24 credits of coursework in the major, including CSIA 520, and a minimum GPA of 3.0 in the major at UMUC. An exploration of the role of government in securing cyberspace. Topics include federal, state, and local entities involved in cybersecurity; relevant laws and regulation; concepts of civil liberties, intellectual property, and privacy; policy formulation and analysis; law enforcement; development and diffusion of standards; and national security. Discussion also covers public/private engagement models and opportunities and tools for government to encourage cybersecurity education, awareness, and research.

Economics

Courses in economics (designated ECON) may be applied as appropriate (according to individual program requirements) toward

- the general education requirement in the behavioral and social sciences;
- a major in finance;
- a minor in economics;
- related requirements for most business-related majors and minors; and
- electives.

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.

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 301 Current Issues in Economic Policy (3)

Prerequisites: ECON 201 and 203. An analysis of contemporary economic issues. The goal is to evaluate and analyze contemporary issues within an economic framework. Topics are drawn from micro-, macro-, and international economics and may include the U.S. government deficit, globalization, social programs, and environmental and development issues.

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 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 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.

Educational Principles

Courses in educational principles (designated EDCP) do not apply toward teacher-certification requirements.

Lower-level courses are intended to help students learn how to make the most of their college careers. They are recommended for students who have been away from school or who need to improve their academic skills.

EDCP 103 does not fulfill the general education requirement in communications; it may be used as elective credit only.

Other courses designed to help students succeed in school or on the job are included under career planning (courses designated CAPL) and library skills and information literacy (courses designated LIBS).

EDCP 103 Fundamentals of Writing and Grammar (3)

(Does not fulfill the general education requirement in communications. Recommended as preparation for WRTG 101, WRTG 101S, or upper-level writing courses.) A review of basic writing skills. The objective is to apply specific steps within the writing process; write effective sentences, paragraphs, and short essays; and edit writing for grammar and punctuation. Topics include the writing process; strategies for developing academic paragraphs and essays; and key aspects of grammar, punctuation, and mechanics. Practice in refining writing skills is provided. Students may receive credit for only one of the following courses: EDCP 103, EDCP 103X, ENGL 100, or WRTG 100.

Education: Teacher Preparation

The courses in education: teacher preparation (designated EDTP) may be applied only as electives to the bachelor's degree. They are designed to articulate with UMUC's Master of Arts in Teaching (MAT) and are available only to majors consistent with the areas in which the MAT offers eligibility for Maryland state teacher certification.

EDTP 600 Foundations of Teaching for Learning (6)

(Available to majors in computer science, English, history, and social science, and political science, and other students with the appropriate coursework consistent with the areas in which UMUC's Master of Arts in Teaching offers eligibility for Maryland state teacher certification.) Prerequisites: 30 credits of major coursework and a minimum GPA of 3.0 in the major. 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.

EDTP 635 Adolescent Development and Learning Needs (6)

(Available to majors in computer science, English, history, social science, and political science, and other students with the appropriate coursework consistent with the areas in which UMUC's Master of Arts in Teaching offers eligibility for Maryland state teacher certification.) May also be applied to the MAT program at UMUC as equivalent to EDTP 635, if completed with a grade of B or better.) Prerequisites: 30 credits of major coursework and a minimum GPA of 3.0 in the major. Preparation to support the unique development of adolescents from various backgrounds, with varying beliefs, and with varied 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 typical and atypical development of the adolescent.

Emergency Management

Courses in emergency management (designated EMGT) may be applied as appropriate (according to individual program requirements) toward

- a minor in emergency management or corporate security;
- certain UMUC graduate degree programs, where recognized as equivalent coursework (specific equivalencies are detailed in the UMUC graduate catalog); and
- electives.

EMGT 302 Concepts of Emergency Management (3)

Prerequisite: WRTG 101 or WRTG 101S. 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)

Prerequisites: 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 306 Political and Policy Issues in Emergency Management (3)

Prerequisite: EMGT 302. An examination of the legal and regulatory principles, policies, and issues that affect emergency management. The aim is to analyze key forces that influence policy, apply the principles of policy and law, and identify and analyze emerging issues to improve organizational preparedness. Emphasis is on how emergency management policy and legislation is developed and maintained at international, national, regional, state, and local levels.

INFORMATION ON COURSES

EMGT 308 Exercise and Evaluation Programs (3)

Prerequisites: EMGT 304 and 306. 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 to support continuous improvement.

EMGT 310 Continuity of Operations Planning and Implementation (3)

Prerequisites: EMGT 304 and 306. An exploration of the process for developing, implementing, exercising, and evaluating continuity of operations for both government and industry. The goal is to identify critical and essential functions to ensure continuity of operations, evaluate and improve continuity plans, and recognize triggers and events that activate continuity plans. Emphasis is on being able to continue to supply services to constituents and customers while supporting staff and initiating recovery operations.

EMGT 312 Social Dimensions of Disaster (3)

Prerequisites: EMGT 304 and 306. 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)

Prerequisites: EMGT 304 and 306. 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 protection of critical infrastructure is linked to national, state, and local guidelines, and the role of first responder groups and other stakeholders is discussed. The objective is to devise and prepare plans, use appropriate guidelines in response to terrorism, and use interagency dynamics in the planning and response to terrorism.

EMGT 404 Planning and Response for Catastrophic Disasters (3)

Prerequisites: EMGT 304 and 306. An examination of the preparation for and response to disasters beyond the capability of available resources from geographical, international, national, or local perspectives. The goal is to identify triggers and events, assign leadership roles and responsibilities to respond to and recover from a catastrophic event, and analyze and apply historical lessons and current emergency management best practices to planning. Recent case studies are used to determine the characteristics of a catastrophic disaster. Discussion also covers the special issues of response and recovery and preparation issues at international, national, and local levels.

EMGT 486A Workplace Learning in Emergency Management (3)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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

Courses in English (designated ENGL) may be applied as appropriate (according to individual program requirements) toward

- the general education requirement in the arts and humanities;
- a major in English or humanities;
- a minor in African American studies, English, humanities, or women's studies; and
- electives.

ENGL 102 Composition and Literature (3)

(Fulfills the general education requirements in communications or arts and humanities.) Prerequisite: WRTG 101 or WRTG 101S. 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 Greek and Roman Mythology (3)

(Formerly HUMN 103.) A study of the major gods and goddesses of ancient Greece, as examined through the legends and stories of both Greek and Roman authors of ancient history. The stories of the major heroes and heroic events are also studied. Students may receive credit for only one of the following courses: ENGL 103 or HUMN 103.

ENGL 205 Introduction to Shakespeare (3)

Prerequisite: WRTG 101 or WRTG 101S. An examination of representative Shakespearean plays from each genre (comedy, history, tragedy, and romance, as well as poems and sonnets). The goal is to analyze and interpret texts; demonstrate relevance of texts in today's culture; and ethically locate, assess, and use secondary source materials.

ENGL 240 Introduction to Fiction, Poetry, and Drama (3)

Prerequisite: WRTG 101 or WRTG 101S. 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 281 Standard English Grammar (3)

(Formerly WRTG 288. Fulfills the general education requirement in communications but is not a writing course.) Prerequisite: WRTG 101. 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: Fiction and Creative Nonfiction (3)

Prerequisite: WRTG 101 or WRTG 101S. An introductory survey and practical study of key areas of creative writing in creative nonfiction and fiction. The objective is to write original fiction and creative nonfiction and critique, revise, and edit writing. Emphasis is on reading and thinking critically and analytically from a writer's perspective as a means to better understand the craft. Discussion may cover publishing. Peer review of manuscripts may be included.

ENGL 303 Critical Approaches to Literature (3)

(Designed as a foundation for other upper-level literature courses.) Prerequisite: WRTG 101 or WRTG 101S. 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 309 Medieval British Literature (3)

Prerequisite: WRTG 101 or WRTG 101S. An overview of British medieval literature within its historical context. The aim is to analyze literary works in their sociohistorical contexts, interpret medieval literary works, and apply research and writing skills to new concepts and information. Topics include major works, authors, and genres from c. 500 to 1500 AD, with an emphasis on early English works such as *Beowulf, Sir Gawain and the Green Knight,* and the *Booke of Margery Kempe,* among others.

ENGL 310 Renaissance Literature (3)

Prerequisite: WRTG 101 or WRTG 101S. An exploration of the cultural attitudes and values that separate the Middle Ages from the Renaissance, highlighting the changing role and purpose of the writer. The goal is to locate and evaluate appropriate sources, create professional written communications, and apply MLA documentation to written work. Major authors may include Spenser, Marlowe, and Shakespeare.

ENGL 311 17th- and 18th-Century British Literature (3)

Prerequisite: WRTG 101 or WRTG 101S. A study of the literature of 17th- and 18th- century Britain, with an emphasis on the development of individualism. The aim is to locate and evaluate appropriate sources; create professional written communications; and gain a historical perspective through analysis of race, class, and gender issues. Authors may include Dryden, Swift, Pope, Montagu, Fielding, and Johnson.

ENGL 312 Romantic to Modern British Literature (3)

Prerequisite: WRTG 101 or WRTG 101S. A study of representative authors and works in British literature from the early 19th century to 1945. The goal is to evaluate and synthesize source materials; create professional written communications; and gain a historical perspective through analysis of race, class, and gender issues. The works of representative writers (such as Jane Austen, Charles Dickens, Thomas Hardy, and P. D. James) are explored.

INFORMATION ON COURSES

ENGL 333 Business and Leadership in Literature (3)

Prerequisite: WRTG 101 or WRTG 101S. An exploration of business and leadership in the workplace as described in various literary works. The aim is to assess and evaluate elements of text and apply knowledge of text to workplace situations and needs. Case studies are taken from fiction, drama, and poetry. Analysis covers attitudes toward work, definitions of success and the "American Dream," ethics in the workplace, leadership and management strategies, interpersonal conflict at work, occupational and personal identity, diversity issues, and power relationships in the workplace.

ENGL 345 Modern Poetry: 1914 to 1945 (3)

Prerequisite: WRTG 101 or WRTG 101S. A survey of English and American modernist poetry from 1914 to 1945. The goal is to interpret and analyze literature, apply critical theory, form evidence-based conclusions, and identify elements of modernist poetry. Topics include the poets of World War I (Owen, Sassoon, Thomas), high modernism (Yeats, Pound, Eliot), modernism (Stevens, Williams, Frost), and the Harlem renaissance (Hughes, Cullen, McKay).

ENGL 354 American Women Writers Since 1900 (3)

Prerequisite: WRTG 101 or WRTG 101S. An examination of the contributions of major American women writers since 1900. The aim is to identify the impact of 20th- and 21st-century American women's literature and to consider its significance for American culture, the literary canon, and the changing roles of women in American life.

ENGL 358 British Women Writers Since 1900 (3)

Prerequisite: WRTG 101 or WRTG 101S. Recommended: ENGL 240 and 303. A study of major 20th-century British women writers, with an emphasis on their contributions to the novel, drama, poetry, and/or short story. The goal is to locate and critically evaluate appropriate sources; create professional written communications; and gain a historical and cultural perspective by analyzing feminist and other critical and social issues. Authors may include Woolf, Bowen, Winterson, Lessing, and Churchill.

ENGL 363 African American Authors from the Colonial Era to 1900 (3)

Prerequisite: WRTG 101 or WRTG 101S. 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 Present (3)

Prerequisite: WRTG 101 or WRTG 101S. 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 101 or WRTG 101S. 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 382 Stage and Screen Script Writing (3)

Prerequisite: WRTG 101 or WRTG 101S. Recommended: ENGL 294 or other creative writing course. A hands-on, project-based introduction to screen and stage writing. The goal is to write, critique, analyze, and revise original plays for stage or screen. Assignments include a treatment or outline and at least a sample section. Discussion covers industry-standard principles developed by such experts as Robert McKee, Blake Snyder, David Mamet, Stuart Spencer, and Aristotle, among others. Topics include professional aspects of writing, such as query letters, script formatting, ethical and legal concerns, and marketing.

ENGL 386 History of the English Language (3)

Prerequisites: WRTG 101 or WRTG 101S. 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 Seminar in Shakespeare Studies (3)

Prerequisite: WRTG 101 or WRTG 101S. An intensive study of Shakespeare's dramatic masterpieces both in a historically specific social and cultural context and as timeless concerns reflecting the human condition. The objective is to evaluate and synthesize source materials and apply critical theory to 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 101 or WRTG 101S. 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 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 419 Major British Writers After 1800 (3)

Prerequisite: WRTG 101 or WRTG 101S. Recommended ENGL 240 and 303. A comprehensive and intensive study of one or two British authors from the 19th, 20th and 21st centuries. The aim is perform research and understand the importance of biographical, historical, and cultural influences on the writer and the legacy of the writer. May be repeated to a maximum of 6 credits when topics differ.

ENGL 425 20th-Century British Literature (3)

Prerequisite: WRTG 101 or WRTG 101S. A critical examination of representative authors and works in British literature of the 20th century, with emphasis on historical and cultural influences and literary themes and techniques. The aim is to analyze works, question the role of literature as change agent, and analyze literary style and technique to develop cultural literacy. Writers and works represent modernism, postmodernism, and postcolonialism.

ENGL 430 American Literature: Discovery to 1914 (3)

Prerequisite: WRTG 101 or WRTG 101S. 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 101 or WRTG 101S. A study of key eras and theories concerning the uniqueness of American fiction, creative nonfiction, nonfiction, and drama. The goal is to interpret and analyze literature and apply critical theory in the formation of logical conclusions. Focus is on the major changes that occurred in society and history as they affected literature after World War I and before the end of World War II.

ENGL 434 Contemporary American Drama (3)

Prerequisite: WRTG 101 or WRTG 101S. An examination of representative authors in the development of American drama, with emphasis on post–World War II writers. The goal is to examine the dramatic re-creation of historical themes and events and relate them to contemporary social issues.

ENGL 437 Contemporary American Literature (3)

Prerequisite: WRTG 101 or WRTG 101S. A survey of representative authors and works in the development of American literature from 1945 to the present, with emphasis on fiction and drama. Works studied may include fiction by Truman Capote, John Cheever, Flannery O'Connor, Anne Tyler, Kurt Vonnegut, and Alice Walker and dramas by Tennessee Williams, Arthur Miller, Lorraine Hansberry, William Inge, August Wilson, Lanford Wilson, Tina Howe, Sam Shepard, and Tony Kushner. Some films may also be included.

ENGL 439 Major American Writers (1–3)

Prerequisite: WRTG 101 or WRTG 101S. 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 101 or WRTG 101S. 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; postmodernism; multiculturalism; and environmentalism.

ENGL 454 Modern World Drama (3)

Prerequisite: WRTG 101 or WRTG 101S. An examination of 20th-century theatre, with an emphasis on the social, cultural, and historical context of drama. The goal is to analyze the elements of drama, evaluate human motivations and behavior, and interpret the dramatic re-creation of historical events. Drama from around the globe is examined. Discussion covers the works of major playwrights, such as Ibsen, Strindberg, Chekhov, Shaw, O'Neill, Miller, Williams, Brecht, Pirandello, Hansberry, Orton, Ionesco, Beckett, Pinter, Fugard, Albee, Stoppard, or Shepard.

ENGL 466 The Arthurian Legend (3)

Prerequisite: WRTG 101 or WRTG 101S. An advanced examination of the literary tradition of King Arthur since Roman times. The aim is to examine the Arthurian legend across genres and time; evaluate the broad appeal of the Arthurian legend; and formulate arguments concerning the historical origin, social impact, and/or aesthetic allure of the Arthurian legend. Topics include the origin of the Arthurian legend in Celtic folklore and English chronicles; the heyday of the Arthurian legend in medieval and Renaissance literature; and Victorian British and modern American revivals of Arthur in art, film, novels, and/or political commentary.

ENGL 476 Fantasy, Horror, and Science Fiction (3)

(Formerly ENGL 476X.) Prerequisite: WRTG 101 or WRTG 101S. An analysis of major works of fantasy, horror, and science fiction. The aim is to assess and evaluate elements of text and apply knowledge of text to life experience. Emphasis is on the development of the genres. Readings may include gothic, horror, ghost stories, adventure fantasy, and science fiction. Students may receive credit for only one of the following courses: ENGL 476 or ENGL 476X.

ENGL 481 Seminar in Creative Writing: Fiction and Creative Nonfiction (3)

Prerequisite: WRTG 101 or WRTG 105. An overview of advanced techniques of narration. The objective is to write, critique, and revise intermediate- to advanced-level original short fiction and creative nonfiction and demonstrate mastery of specific aesthetic, stylistic, and formal literary elements. Students may receive credit for only one of the following courses: ENGL 479E or ENGL 481.

ENGL 485 Seminar in Creative Writing: Poetry (3)

Prerequisite: WRTG 101 or WRTG 105. An overview of advanced techniques of poetry. The objective is to write, critique, and revise intermediate- to advanced-level original poetry and demonstrate mastery of specific aesthetic, stylistic, and formal literary elements. Students may receive credit for only one of the following courses: ENGL 485 or ENGL 498P.

ENGL 486A Workplace Learning in English (3)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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.

ENGL 486B Workplace Learning in English (6)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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.

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, 303, and another 15 credits in ENGL coursework. The creation and submission of a comprehensive research thesis or project under the guidance of a faculty mentor. The aim is to synthesize knowledge, skills, and abilities acquired through previous study and apply it to professional and postgraduate objectives. Careers and postgraduate work for English majors and minors are also explored.

Environmental Management

Courses in environmental management (designated ENMT) may be applied as appropriate (according to individual program requirements) toward

- a major in environmental management or management studies;
- a minor in environmental management; and
- electives.

Courses in environmental management require a basic scientific foundation. Before enrolling, students are recommended to complete the related requirements in math and science and should consult an advisor.

ENMT 301 Environment and Ecosystems Management (3)

Prerequisite: CHEM 297 or an environmental chemistry course. 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 history of the environmental movement, and concepts of risk assessment and management. The historical development of environmental management issues and approaches is introduced.

ENMT 303 Environmental Regulations and Policy (3)

(Formerly ENMT 493.) Prerequisite: ENMT 301. Recommended: LIBS 150. 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 An Introduction to Geographical Information Systems (3)

An introduction to the basic concepts of geographic information systems (GIS). The aim is to apply functions of GIS software to create and interpret various spatial data representations for decision making. Discussion covers the capacity for GIS to store, retrieve, analyze, model, and map spatial data from a wide array of applications including land use planning, utilities management, ecosystems modeling, landscape assessment and planning, transportation and infrastructure planning, market analysis, visual impact analysis, facilities management, tax assessment, and real estate analysis.

ENMT 310 Emergency Planning and Operations Management (3)

Prerequisite: ENMT 301. Recommended: BIOL 301 or a health-related biology course. 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)

Prerequisite: ENMT 301. 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.

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ENMT 321 Environmental Health (3)

Prerequisite: ENMT 301. Recommended: BIOL 301 or a health-related biology course. A study of the effects of environmental hazards, particularly hazards created or influenced by human activities, on human health. The aim is to evaluate environmental and health hazards and formulate strategies for controlling environmental health hazards through hazard management. Topics include chemical pollution of the air, soil, and water and the effects of physical environmental hazards (such as radiation and noise pollution) on the well-being of humans.

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)

Prerequisite: ENMT 301. Recommended: MATH 115 or MATH 107–108. 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 Individuals, Society, and Environmental Sustainability (3)

(Formerly BEHS 365.) Recommended: WRTG 101 or WRTG 101S. An interdisciplinary study of the role of individual human behavior and social institutions in environmental sustainability, stewardship, and conservation. The objective is to evaluate and develop strategies to promote personal and public behaviors that support environmental sustainability. Ways in which our own conduct contributes to larger global patterns is examined. Emphasis is on sustainable consumer behavior. Discussion covers the identification of barriers to participation in sustainability and mechanisms for the elimination of those barriers. Students may receive credit for only one of the following courses: BEHS 365, BEHS 398O, or ENMT 365.

ENMT 380 Air Quality Management (3)

Prerequisite: ENMT 301. Recommended: BIOL 301 or a health-related biology course. An overview of air quality management principles and strategy. The goal is to evaluate air quality management strategies and identify the risk and possible causes of air pollution. 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.

ENMT 390 Environmental Health Risk Assessment (3)

Prerequisite: ENMT 301. Recommended: BIOL 301 (or a health-related biology course), WRTG 101 (or WRTG 101S), and a statistics 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 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)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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 in the student's last 15 credits.) Prerequisites: ENMT 301, 303, 321, 322 (or ENMT 405), 340, and 390. Recommended: MATH 115 (or MATH 107 and 108) and WRTG 393. 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 in a manner based on effective, practical approaches. Topics include economic development and environmental pollution, remediation, and conservation within a multifaceted 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, experiences, research issues, and new paradigms of design.

Experiential Learning

The Portfolio program yields UMUC credit for learning acquired outside the classroom.

The course in experiential learning (designated EXCL), as well as credit earned through the program, may be applied toward

- appropriate majors and minors;
- general education requirements (according to content) as appropriate; and
- electives.

Information about this program is given on pp. 213–14. Details are also available online at *www.umuc.edu/priorlearning.*

EXCL X001 Supplement to Learning Analysis and Planning (0)

(Students should visit *www.umuc.edu/priorlearning* or contact *priorlearning@umuc.edu* for complete requirements.) Prerequisite: EXCL 301. An opportunity to submit additional portfolios for courses not previously targeted. Focus is on defining goals, documenting learning gained through experience, and analyzing the relationship of experiential learning to conventional learning. Completed portfolios are evaluated by faculty to assess possible award of credit; a total of 30 credits may be awarded through Portfolio.

EXCL 301 Learning Analysis and Planning (3)

(Students should visit *www.umuc.edu/priorlearning* or contact *priorlearning@umuc.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. Focus is on defining goals, documenting learning gained through experience, and analyzing the relationship of experiential learning to conventional learning. Completed portfolios are evaluated by faculty to assess possible award of credit; up to 30 credits may be awarded.

Finance

Courses in finance (designated FINC) may be applied as appropriate (according to individual program requirements) toward

- a major in finance, business administration, human resource management, laboratory management, management studies, or public safety administration;
- a minor in finance, business administration, international business, or small business management and entrepreneurship;
- a certificate in Management Foundations; and
- electives.

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 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)

(Formerly BMGT 340.) Prerequisites: ACCT 221 and STAT 230. 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 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)

Prerequisites: FINC 330 and 340. A study of the tools and principles of life insurance 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 programming and estate planning. Students may receive credit for only one of the following courses: BMGT 347 or FINC 352.

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 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, directly apply financial information to valuation models, and evaluate growth strategies to maximize company value. Topics include assessment of business performance, projection 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 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 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 441 Financial Derivatives and Portfolio Risk Management (3)

Prerequisites: FINC 330 and 340. A comprehensive and quantitative examination of risk management, financial engineering, and financial derivatives. The objective 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. Focus is on the application of financial derivatives to mitigate risk, enable investment strategies, and improve portfolio performance. Topics include risk management; hedging; speculation; stock and other options; structure of futures prices; interest-rate futures; and efficiency in futures and forwards markets, swaps, and synthetic securities. Discussion also covers 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 scenarios are analyzed to value financial assets and compare alternatives. Students may receive credit for only one of the following courses: BMGT 444 or FINC 441.

FINC 450 Commercial Bank Management (3)

Prerequisites: FINC 330 and 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 451 Financial Markets and Institutions (3)

Prerequisites: FINC 330 and 340. An advanced study of financial markets and institutions. The goal is to determine profit-earning strategies of financial institutions; assess the impact of government regulations on financial markets, institutions, and the global economy; and analyze major financial crises and their effects on the global financial landscape. Topics include various types of financial products, markets, and institutions, including the Federal Reserve, the World Bank, and the International Monetary Fund.

FINC 460 International Finance (3)

Prerequisites: FINC 330 and 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)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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 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 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

Courses in fire science (designated FSCN) may be applied as appropriate (according to individual program requirements) toward

- a major in investigative forensics;
- a minor in fire service administration; and
- electives.

The fire science curriculum is unique and is designed primarily for firefighters. Students should consult an advisor before enrolling in any of the courses.

FSCN 302 Fire and Emergency Services Administration (3)

Prerequisite: WRTG 101 or WRTG 101S. 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.

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 306 Fire Investigation and Analysis (3)

Prerequisites: FSCN 304 and 305. An examination of the technical, legal, and social aspects of fire investigation. The goal is to apply legal precedents and the scientific method to fire investigations and analyze data critical to fire investigation. Topics include the scientific method, basic fire science, fire origin and cause determination, fire investigation management, and legal aspects of fire investigation.

FSCN 402 Fire-Related Human Behavior (3)

Prerequisites: FSCN 304 and 305. A study of human behavior in fire and emergency situations. A best-practice building life-safety system is presented as one that combines knowledge of psychology and sociology with engineering and education skills to produce the best possible outcomes in terms of human survivability in an emergency. The objective is to predict human behavior, recognize factors that influence human behavior, and analyze the impact of building safety systems on human behavior. Topics include current and past research on human behavior, systems models, life safety education, and building design to determine how these elements interrelate in emergency situations.

FSCN 411 Fire Protection Structure and Systems (3)

Prerequisites: FSCN 304 and 305. A presentation of design principles involved in protecting structures from fire. The aim is to analyze building structural components and determine appropriate fire detection and suppression systems. Empirical tests and prediction procedures are explained. Presentation covers practices in designing systems for detecting, controlling, and suppressing fires, as well as the basic hydraulic design of sprinkler and water-spray systems. Review covers recent innovations in the field.

FSCN 412 Political and Legal Foundations of Fire Protection (3)

Prerequisites: FSCN 304 and 305. A consideration of the legal basis for the police powers of the government in connection with public safety. The objective is to ensure compliance with regulations and policies, guide decision making and operations in accordance with ethical best practices, and help improve public safety. The responsibility, legal limitations, and liability of fire-prevention organizations and personnel are examined. Review covers judicial decisions, focusing on the implications of product-liability cases in the field of fire prevention.

FSCN 413 Community Risk Reduction for the Fire and Emergency Services (3)

Prerequisites: FSCN 304 and 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 414 Fire Dynamics (3)

Prerequisites: FSCN 304 and 305 and either MATH 106 or MATH 107. A study of the physics and chemistry of fire dynamics phenomena. The aim is to quantify fire threat and behavior, apply mathematical analysis to fire growth and spread, and use fire dynamics principles to analyze compartment fires. Topics include ignition, energy release, heat transfer, fire growth and spread, smoke production and movement, and flashover in compartment fires.

FSCN 415 Applications of Fire Research (3)

Prerequisites: FSCN 304 and 305. A practical, up-to-date review of fire research and its application. The objective is to develop a research project, apply existing research to public safety outcomes, and influence public safety research agenda. The transfer of research to practical application and its implications for fire prevention and protection programs are addressed. Focus is on both national and international studies and on maintaining awareness of ongoing research developments.

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FSCN 416 Emergency Services Training and Education (3)

Prerequisites: FSCN 304 and 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.

FSCN 486A Workplace Learning in Fire Science (3)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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.

FSCN 486B Workplace Learning in Fire Science (6)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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.

French

Courses in French (designated FREN) may be applied as appropriate (according to individual program requirements) toward

- the general education requirements in the arts and humanities; and
- electives.

Students with prior experience in the French language—through study or living abroad, informal learning from friends or family, or high school or other coursework that did not transfer to UMUC—should take a placement exam before enrolling. Students with oral proficiency in French who wish instruction in written French should also take the placement test.

UMUC offers a limited number of foreign language courses each session.

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; assumes some prior knowledge of French. Students with prior experience with the French language but without transfer credits or FREN 111 should take a placement test to assess appropriate level.) Prerequisite: FREN 111 or appropriate score on 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.

Geography

Courses in geography (designated GEOG) may be appropriate (according to individual program requirements) toward

- the general education requirement in the behavioral and social sciences; and
- electives.

UMUC offers only a limited number of courses each session in this discipline.

GEOG 100 Introduction to Geography (3)

An introduction to the broad field of geography. Emphasis is on concepts relevant to understanding global, regional, and local issues.

Geology

Courses in geology (designated GEOL) may be applied as appropriate (according to individual program requirements) toward

- the general education requirement in the biological and physical sciences;
- a minor in natural science; and
- electives.

UMUC offers only a limited number of courses each session in this discipline.

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 impact 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

Courses in German (designated GERM) may be applied as appropriate (according to individual program requirements) toward

- the general education requirements in the arts and humanities; and
- electives.

Students with prior experience in the German language—through study or living abroad, informal learning from friends or family, or high school or other coursework that did not transfer to UMUC—should take a placement exam before enrolling. Students with oral proficiency in German who wish instruction in written German should also take the placement test.

UMUC offers a limited number of foreign language courses each session.

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.

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.

Gerontology

Courses in gerontology (designated GERO) may be applied as appropriate (according to individual program requirements) toward

- the general education requirement in the behavioral and social sciences (except GERO 342 and 351 and 1-credit GERO courses);
- a major in gerontology and aging services, health services management, nursing for registered nurses, or social science;
- a minor in diversity awareness, gerontology and aging services, health services management, or women's studies; and
- electives.

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 220 Psychological Aspects of Aging (3)

(Fulfills the general education requirement in behavioral and social sciences.) Recommended: GERO 100. An overview of normative and atypical psychological functioning in postmidlife. The goal is to articulate how biological, sociocultural, and life cycle forces impact psychological well-being and neurocognitive function. Topics include postmidlife developmental theories, sensation and perception, cognition, intelligence, memory, wisdom, personality, psychopathology, the dementias, depression and delirium, wellness and well-being, work and leisure, and culture and life transitions. Students may receive credit for only one of the following courses: GERO 220 or PSYC 357.

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 health care 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 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, 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 327 Ethnicity and Aging (3)

(Fulfills the general education requirement in behavioral and social sciences.) Recommended: GERO 100. An interdisciplinary examination of the increasing heterogeneity of the aging population in the United States. The objective is to identify how social, health care, and government agencies can effectively meet the needs of older adults in ethnic communities. Topics include theory and research related to ethnicity and aging, the resources and needs of older adults from different ethnic groups, the impact of ethnicity and culture on the aging family, caregiving, health disparities, and social relationships.

GERO 331 Sociology of Aging (3)

Recommended: GERO 100. An advanced examination of the social forces that affect the aging process from a number of theoretical perspectives found in sociology and social gerontology. The aim is to analyze the demographic changes taking place across the world; examine the social construction of aging and how age-related norms and roles vary across groups and cultures; and evaluate the impact of aging, ageism, and longevity on social structures such as the family, work, retirement, health care, government, and economics. Topics include sociological and social gerontological explanations of the aging process, interactions between the aging process and the larger social structure, the aging experience across different cultures, and current social policies toward aging and their implications for the future.

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 351 Managing Senior Housing Environments (3)

A framework for training retirement-housing professionals. The aim is to identify programs and housing options available to the elderly and evaluate senior housing environments using financial, regulatory, and administrative principles and best practices. Topics include regulatory standards and processes, financial management and vehicles for funding, market penetration and absorption, staffing needs, environmental design, facilities management, and key resident services (such as transportation, nutrition, residential life, personal care, and special needs).

GERO 355 Nutritional Concerns of Aging (3)

Recommended: GERO 100. A survey of the nutritional concerns of the elderly, including causes, pathophysiology, prevention, and control. Topics include the role of nutrients in the etiology of various illnesses associated with aging (such as anemia, osteoporosis, gastrointestinal tract disorders, cancer, cardiovascular diseases, maturity-onset diabetes, crippling arthritis, stroke, Alzheimer's disease, cataracts, tooth loss, and vision loss). Discussion also covers the effects of aging on appetite, nutrition and exercise, vegetarianism, and food choices. Nutritional assessment, the influence of different cultures on nutrition, and community resources are examined. Students may receive credit for only one of the following courses: GERO 355 or GERO 495K.

GERO 390 Economics 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 410 Cross-Cultural Perspectives of 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. The goal is to raise critical awareness of how aging is experienced across cultures. Topics include cross-cultural theory and research on aging; research methods; 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 care for older adults is also covered from a cross-cultural perspective.

GERO 486A Workplace Learning in Gerontology (3)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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 on p. 215 and online at *www.umuc.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.

Government and Politics

Courses in government and politics (designated GVPT) may be applied as appropriate (according to individual program requirements) toward

- the general education requirement in the behavioral and social sciences;
- a major in East Asian studies or political science;
- a minor in political science, philosophy, or terrorism and critical infrastructure; and
- electives.

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 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 electoral 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 401 Understanding 21st Century Global Challenges (3)

Prerequisite: WRTG 101 or WRTG 101S. Recommended: GVPT 200. 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.

GVPT 403 Law, Morality, and War (3)

Prerequisite: WRTG 101 or WRTG 101S. A study of just war traditions. The objective is to make informed decisions and analyze conflict. Discussions cover the theoretical and practical connections between law, war, and morality.

GVPT 404 Democracy and Democratization (3)

Prerequisite: WRTG 101 or WRTG 101S. An examination of the process and prospects of democratization. The goal is to interpret the language of democratization, apply theories of democratization, and use the tools and methods of democracy measurement in U.S. government and nongovernmental organizations. Topics include the concepts of democracy and democratization, how those concepts have changed over time, and the conditions under which democracy historically develops and thrives. Discussion also covers gains and failures in the past four decades in certain regions and states. Assignments include designing and evaluating a democratization strategy for a given state or region.

GVPT 406 Global Terrorism (3)

Prerequisite: WRTG 101 or WRTG 101S. 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.

GVPT 407 State Terrorism (3)

(Formerly GVPT 401B and GVPT 401C. Not open to students who have completed GVPT 401B or GVPT 401C.) 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.

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.

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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 101 or WRTG 101S. 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 between war, peace, and diplomacy.

GVPT 457 American Foreign Relations (3)

Prerequisite: WRTG 101 or WRTG 101S. 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 101 or WRTG 101S. 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)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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 487 Government and Politics of Southwest Asia (3)

A comparative examination of the politics of India, Pakistan, and Afghanistan. The objective is to understand their common history and how each emerged from independence movements to develop in different directions. Discussion addresses religious conflicts; colonial experiences; nationalist ideologies; and the consequences of economic, political, and cultural globalization.

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 101 (or WRTG 101S) 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

Courses in graphic communication (designated GRCO) may be applied as appropriate (according to individual program requirements) toward

- the general education requirement in the arts and humanities;
- a major in graphic communication or humanities;
- a minor in art or humanities; and
- electives.

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.

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 computer graphics programs and digital media and design. The objective is to use current technologies in the production of digital art and design, integrate images and text in a cohesive design, and conceive and create a product and follow it through all stages of production. Focus is on the production of artwork for both mass media and noncommercial media. Current technologies are used to explore various formats, including print and the web. Students may receive credit for only one of the following courses: ARTT 354 or GRCO 354.

GRCO 355 Digital Media II: Time and Motion (3)

Prerequisite: GRCO 354. A further examination of concepts in art and design focusing on the use of time-based formats. The goal is to use current technologies to develop a time-based narrative from concept to production, including creating and animating imagery to depict the narrative and integrating text and audio into time-based media for platforms (such as the web, television, DVD, and mobile devices). Discussion covers strategies for developing work for a variety of output applications. Focus is on production of portfolio-caliber projects.

GRCO 450 Advanced Graphic Communication: Professional Branding (3)

Prerequisites: GRCO 350 and 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 458 Illustration (3)

(Formerly ARTT 458.) Prerequisite: ARTT 210. A hands-on, project-based exploration of illustration. Focus is on developing fundamental skills in illustration, including the interpretation of texts and ideas to create images. The goal is to translate ideas into images, compose effective images, and use appropriate techniques for media. Topics include drawing, composition, meaning, and communication of mood. Projects include works in a variety of areas, including storyboarding and scientific, technical, advertising, and children's materials. Students may receive credit for only one of the following courses: ARTT 458 or GRCO 458.

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)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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 resume). 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

Courses in health services management (designated HMGT) may be applied as appropriate (according to individual program requirements) toward

- a major in health services management, gerontology and aging services, management studies, or nursing for the registered nurse;
- a minor in business administration or health services management; and
- electives.

HMGT 300 Introduction to the U.S. Health Care Sector (3)

(Formerly BMGT 361.) An overview of health care organizations in the United States and current and emerging concepts, trends, policies, and issues in health care. The aim is to explain the structure of the U.S. health care sector, understand the role of health care managers in meeting industry standards of care, and apply knowledge of health care workforce issues to solve management challenges. Students may receive credit for only one of the following courses: BMGT 361, HMGT 100, or HMGT 300.

HMGT 310 Health Care Policies (3)

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 health care services.

HMGT 320 Management in Health Care Organizations (3)

Prerequisite: HMGT 300 or BMGT 361. An introduction to management in the health care 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 health care organizations and their management is provided. Focus is on the application of essential management and leadership skills in a health care environment. Students may receive credit for only one of the following courses: BMGT 367 or HMGT 320.

HMGT 322 Health Care Financial Management (3)

Prerequisite: HMGT 300 or BMGT 361. An overview of the acquisition, allocation, and management of the financial resources of health care 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 health care field. Students may receive credit for only one of the following courses: HMGT 322 or HMGT 440.

HMGT 335 Health Care Marketing (3)

An examination of the makeup of the health care market, the role of marketing in the delivery of health care, 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 health care marketing plans. Discussion covers the marketing process and the development and analysis of strategic health care marketing plans.

HMGT 372 Legal and Ethical Issues in Health Care (3)

An examination of legal and ethical issues encountered in health care 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 health care.

HMGT 400 Research and Data Analysis in Health Care (3)

Prerequisites: HMGT 320 and STAT 230. An introduction to research methods and the process of data identification and analysis in the health care field. The objective is to inform health care 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 health care databases, the analysis of problems and issues, and evaluation of research in health care settings. Students may receive credit for only one of the following courses: HMGT 398C or HMGT 400.

HMGT 431 Hospital Management (3)

Prerequisite: HMGT 320. An examination of the organization and operation of hospitals, with a focus on the manager's role in internal operations and external relations. The objective is to understand key issues driving hospital management and apply sound management principles to manage a successful hospital operation.

HMGT 432 Ambulatory Care Management (3)

Prerequisite: HMGT 320. An exploration of the organization and administration of various types of ambulatory service entities, with a focus on the manager's role in internal operations and external relations. The objective is to understand key issues associated with ambulatory care management and apply sound management principles to achieve organizational goals.

HMGT 433 Managed Care (3)

Prerequisite: HMGT 320. An examination of the structural and operational characteristics of managed care organizations and plans and the implications of managed care on hospitals and other health care organizations. The aim is to apply policy and management principles to achieve effective managed care programs.

HMGT 435 Health Care Economics (3)

Prerequisite: ECON 103. An introduction to contemporary economic theory and its application in the management, delivery, and financing of health care systems. The aim is to explain the key concepts in health care economics and apply them to real-world health care situations. Discussion covers how economic forces affect the health care sector and how performance can be assessed and improved using economic tools. Students may receive credit for only one of the following courses: HMGT 398A or HMGT 435.

HMGT 486A Workplace Learning in Health Care Services Management (3)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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 Health Care Services Management (6)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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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HMGT 495 Strategic Planning and Leadership in Health Care (3)

(Intended as a final capstone course to be taken in a student's last 15 credits.) Prerequisites: HMGT 310 and 320. A study of strategic planning and leadership within health care organizations. The aim is to integrate knowledge and experience gained from previous study and build on that conceptual framework through analysis, practical application, and critical thinking. Discussion also covers leadership qualities and skills.

History

Courses in history (designated HIST) may be applied as appropriate (according to individual program requirements) toward

- the general education requirements in the arts and humanities;
- a major in history, East Asian studies, or humanities;
- a minor in African American studies, East Asian studies, history, humanities, terrorism and critical infrastructure, or women's studies; and
- electives.

HIST 107 Classical Foundations (3)

Recommended: WRTG 101 or WRTG 101S. A study of the ancient Greco-Roman world. Original sources of history, art, philosophy, poetry, and drama are consulted. The objective is to compare and contrast works of key thinkers to trace the evolution of ideas. Focus is on individuals who contributed to the shaping of classical civilization. Students may receive credit for only one of the following courses: CLAS 100, HIST 107, or HUMN 102.

HIST 115 World History I (3)

Recommended: WRTG 101 or WRTG 101S. A survey of global civilizations and cultures from prehistory to the 1500s. The aim is to identify important elements of political theory. Focus is on the interaction of those cultures and their political, social, and cultural development.

HIST 116 World History II (3)

Recommended: WRTG 101 or WRTG 101S. A survey of Western and non-Western civilizations and cultures from 1500 to the present. The aim is to identify important elements of political theory and explain the influence of those elements on history. Emphasis is on the political, social, and cultural development of the major civilizations; the interactions between those civilizations; and the development of a global community since 1500.

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 101 or WRTG 101S. 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 101 or WRTG 101S. 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 of war, which 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.

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 316 Advanced Topics in Regional and National History (1–3)

An in-depth study of the histories of specific regions or nations. Assignments include advanced reading and research. Students may receive credit for a given topic in either HIST 216 or HIST 316 only once.

HIST 319 Special Topics in History (3)

An in-depth study of specific topics, themes, events, or problems in history. Assignments include advanced reading and research. Students may receive credit for a given topic in either HIST 219 or HIST 319 only once.

HIST 324 Classical Greece (3)

Prerequisite: Any writing course. A study of the ancient Greeks from Homer to Socrates, from 800 to 400 BC. The aim is to use primary and secondary historical resources to explore Greek thought, demonstrate its influence in the modern Western world, and apply it to modern contexts. Discussion covers the society and religion of the city-state, the Peloponnesian War, the art and literature of Periclean Athens, and the intellectual circle of Socrates.

HIST 325 Alexander the Great and the Hellenistic Age (3)

Prerequisite: Any writing course. A study of the history of the Greeks from 400 to 30 BC. The goal is to use primary and secondary historical resources to explore Greek thought and demonstrate its influence in the modern Western world and apply it to modern contexts. Topics include Alexander and the changes he wrought in the Mediterranean world; the rise of monarchies and leagues; new directions in religion, art, literature, and science; and the Hellenization of the Near East, including the Jews.

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 and 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 327 The Roman Empire (3)

Prerequisite: Any writing course. A study of Roman history from Augustus to Heraclius, from 44 BC to AD 641. The objective is to use primary and secondary historical resources to explore Roman thought and demonstrate its influence in the modern Western world and apply it to modern contexts. Topics include the imperial court and government, the diversity of culture in the provinces and cities and the progress of Romanization, Roman religion and its transformation in late antiquity, and the Roman army and defense of the frontiers. Students may receive credit for only one of the following courses: HIST 327 or HIST 421.

HIST 333 Europe During the Renaissance and Reformation (3)

Prerequisite: Any writing course. A study of the transformation of continental Europe from 1400 to 1648. The objective is to use primary and secondary historical resources to relate the foundation of modern law, ideological constructs, and social attitudes to modern American approaches to contentious issues. Topics include changes in modes of Christian piety and the spread of humanistic ideas, the social and intellectual foundations of Reformation theology, the 16th-century reform movements, and the causes and impacts of the Thirty Years War.

INFORMATION ON COURSES

HIST 336 Europe in the 19th Century: 1815 to 1919 (3)

A study of the political, economic, social, and cultural development of Europe from the Congress of Vienna to World War I. The aim is to describe and evaluate the emergence and evolution of modern schools of thought and their effects on contemporary society.

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 353 Latin America: From Moctezuma to Bolivar (3)

Prerequisite: Any writing course. A survey of Latin America from late pre-Columbian civilizations through European incursion and the wars of independence. The objective is to use primary and secondary historical resources to explore the melding of cultures in the development of modern Latin America. Topics include cultural collisions, political formation, and the end of Iberian domination.

**HIST 354 Modern Latin American History:
1810 to the Present (3)**

Prerequisite: A writing course. Recommended: WRTG 101 and 291. An examination of political, economic, social, cultural, and gender changes and conflict in Latin America, from political independence to recent developments. The aim is to understand the context of Latin American affairs and interpret U.S. policy and its relationship to the region. Topics include agrarian transformation, economic development and underdevelopment, emancipation of slaves, gender hierarchies, national identity urbanization and populism, labor politics, social revolution, and global relationships. Students may receive credit for only one of the following courses: HIST 251 or HIST 354.

HIST 360 America in the Colonial Era: 1600 to 1763 (3)

Prerequisite: Any writing course. Recommended: WRTG 291. A study of the American colonial era. The goal is to locate, evaluate, and use primary and secondary source materials; articulate and interpret events and ideas; and analyze current events in a historical context. Discussion covers the colonial experiences of early Americans and developments in economy, religion, law, gender and race relations, politics, and culture.

HIST 361 America in the Revolutionary Era: 1763 to 1815 (3)

Prerequisite: Any writing course. Recommended: WRTG 291. An extensive examination of the issues and events in colonial British America that resulted in the American Revolution and an exploration of the early development of the United States through 1815. The aim is to locate, evaluate, and use primary and secondary source materials; evaluate the impact of events, individuals, movements, and economic systems; and analyze the formation of an American identity. Emphasis is on political events and social issues, including the creation of a new government under the Constitution and challenges facing the new nation.

**HIST 363 The Gilded Age and the Emergence
of Progressivism (3)**

Prerequisite: A writing course. Recommended: WRTG 291. A focused study of the Gilded Age from Reconstruction to the dawn of the Progressive Era. The goal is to analyze the transformation from a union of states to the United States as a result of the social, cultural, technological, and economic events of the era. Topics include Reconstruction, the westward movement, urbanization, industrialization, imperialism, and the expansion and contraction of rights and liberties.

HIST 364 Emergence of Modern America: 1900 to 1945 (3)

Prerequisite: A writing course. Recommended: WRTG 291. A study of the emergence of modern American institutions and identities in the years 1900–45. The aim 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 the presidencies of McKinley, Roosevelt, Taft, and Wilson; the world wars; the Great Depression; and the period of the New Deal. Discussion also covers emerging issues such as the role of women and African Americans, corporate enterprises, and the welfare state.

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 376 Women and the Family in America to 1870 (3)

An examination of the history of women in the United States from European and Native American contact to 1870. The objective 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 pay particular attention to 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 the American Revolution, nation building, migration, slavery, and changing family roles and structure is evaluated.

HIST 377 United States 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 390 The Rise of Islam to 1300 (3)

Prerequisite: A writing course. Recommended WRTG 101 and 291. A survey of the origins, development, and rapid expansion of Islam into Europe, Asia, and North Africa. The aim is to use primary and secondary historical sources to explore the expansion of Islam. Topics include the diversity of early Islamic beliefs; the evolution of social and political institutions and their expansion into Europe, the Arab East, and North Africa; and the importance of Islamic scholarship in the birth of the modern world. Focus is on the period before 1300.

HIST 391 History of the Ottoman Empire (3)

Prerequisite: A writing course. Recommended: WRTG 291. A survey of the Ottoman Turkish Empire from 1300 AD to its collapse during World War I. The objective is to analyze the shifts in political, social, cultural, and economic arenas; examine the roles and influences of art, philosophy, and religion; and evaluate the roles of war and conflict in the formation and decline of the Ottoman Empire. Emphasis is on the empire's social and political institutions and its expansion into Europe, the Arab East, and North Africa.

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 460 African American History: 1500 to 1865 (3)

An examination of African American communities in the Western Hemisphere from 1500 to 1865. The aim is to examine the impact of slavery on the social, political, and economic landscape of the African continent; explain the origins of the transatlantic slave trade; and discuss how slavery is central to the history and economic development of the United States. Topics include the African continent before the arrival of the Europeans, the enslavement and dispersion of Africans throughout North America, and the events preceding the Civil War and emancipation.

INFORMATION ON COURSES

HIST 461 African American History: 1865 to the Present (3)

Prerequisite: A writing course. Recommended: WRTG 291. An examination 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.

HIST 463 U.S. Military History Since 1865 (3)

Prerequisite: A writing course. Recommended: WRTG 291 and HIST 202. An examination of the U.S. armed forces since the Civil War. The aim is to use primary and secondary historical resources to explore how past theory and practice have shaped the development of weapons systems, strategic planning, and the operational procedures of today's military and national security agencies. Topics include the use of the armed forces in U.S. diplomatic relations, tension between civil and military institutions, the political implications of a standing military, and the social and economic impact of the military in America. Students may receive credit for only one of the following courses: HIST 419N or HIST 463.

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 war-time 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 466 The Cold War (3)

Prerequisite: Any writing course. An introduction to the history of the Cold War, which divided the world along ideological, economic, political, and military lines for more than 40 years. The goal is to use primary and secondary historical resources to understand the relationship of past mistrust to today's headlines. Focus is on the chronology of the struggle between the United States and the Soviet Union, with the former leading the NATO nations and the latter leading the Warsaw Pact nations. Students may receive credit for only one of the following courses: HIST 320, HIST 419I, or HIST 466.

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 481 History of China from 1839 to 1997 (3)

A study of the history of China after the demise of the Qing Dynasty through Deng Xiaoping. The goal is to interpret, educate, and advise others based on a historical, cultural, and social awareness of modern China. Emphasis is on revolution and reform and the effects these changes had on the emergence of China as a world power.

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)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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 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

Courses in homeland security (designated HMLS) may be applied as appropriate (according to individual program requirements) toward

- a minor in homeland security, corporate security, or terrorism and critical infrastructure;
- certain UMUC graduate degree programs, where recognized as equivalent coursework (specific equivalencies are detailed in the UMUC graduate catalog); and
- electives.

HMLS 302 Introduction to Homeland Security (3)

Prerequisite: WRTG 101 or WRTG 101S. 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 302. 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 304 and 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 incidents. Discussion covers historical and potential incidents as they relate to resources, cooperation, politics, regulations, operations, and post-incident response.

INFORMATION ON COURSES

HMLS 312 Technology in Homeland Security (3)

Prerequisites: HMLS 304 and 406. An overview of the existing and potential technology that may be used in homeland security in both the private and public sectors. The goal is to analyze the issues and benefits of the application of technology in homeland security and differentiate the uses and challenges of technology in public versus private sectors. Focus is on knowledge management, protection, response, and communication, as well as ethical and operational issues in technology.

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)

Prerequisites: HMLS 304 and 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)

Prerequisites: HMLS 304 and 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)

Prerequisites: HMLS 304 and 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 486A Workplace Learning in Homeland Security (3)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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.

HMLS 486B Workplace Learning in Homeland Security (6)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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.

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 FSCN, EMGT, or HMLS 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 successful 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

Courses in humanities (designated HUMN) may be applied as appropriate (according to individual program requirements) toward

- the general education requirement in the arts and humanities;
- a major or minor in humanities; and
- electives.

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 themselves through literature, art, music, philosophy, and technology. 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.

HUMN 486A Workplace Learning in Humanities (3)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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.

HUMN 486B Workplace Learning in Humanities (6)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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.

HUMN 495 Humanities Seminar (3)

(Intended as a final, capstone course to be taken in a student's last 15 credits.) Prerequisites: HUMN 100 and 115–116 (or HIST 141–142), ARTT 205, and PHIL 140. 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.

INFORMATION ON COURSES

Human Resource Management

Courses in human resource management (designated HRMN) may be applied as appropriate (according to individual program requirements) toward

- a major in human resource management, business administration, management studies, or public safety administration;
- a minor in human resource management, business administration, international business, or small business management and entrepreneurship;
- a certificate in Human Resource Management or Management Foundations; and
- electives.

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 365 Conflict Management in Organizations (3)

Recommended: HRMN 300. An introduction to the sources and causes of conflict in organizations, as well as effective strategies and systems for managing conflict. The objective is to identify, analyze, and evaluate strategies and systems for managing conflict in the workplace. Topics include alternative approaches to negotiation, facilitation, mediation, and arbitration. Students may receive credit for only one of the following courses: BMGT 398X, HRMN 365, or MGMT 398X.

HRMN 367 Organizational Culture (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. 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 406, or TMGT 360.

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 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)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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 conceptual 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 ON COURSES

Information Systems Management

Courses in information systems management (designated IFSM) may be applied as appropriate (according to individual program requirements) toward

- the general education requirement in computing;
- a major in information systems management, cybersecurity, digital media and web technology, health services management, laboratory management, or nursing for registered nurses;
- a minor in information systems management, contract management and acquisition, cybersecurity, or small business management and entrepreneurship;
- a certificate in Management Foundations or Project Management; and
- electives.

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.) A practical application of information technology for personal and professional productivity. The objective is to use technology appropriately and fluently to organize, analyze, and communicate information. Topics include hardware, software, office applications, information security and ethics, and the Internet. 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)

(Access to Microsoft Office or equivalent required.) Prerequisite: IFSM 201. 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.

IFSM 304 Ethics in Information Technology (3)

Recommended: IFSM 201. A comprehensive study of ethics and of 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 Health Care Organizations (3)

Prerequisite: IFSM 201. An overview of how information systems provide value by supporting organizational objectives in the health care sector. The goal is to evaluate how technology solutions support organizational strategy in the health care environment and improve quality of care, safety, 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 301. 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 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 405 Health Care Information Technology (3)

Prerequisite: IFSM 300 or IFSM 305. A survey of emerging and leading technologies in the health care sector. The aim is to research, evaluate, and determine appropriate integration and best-fit solutions to aid communication; provide information; manage, aggregate, and disseminate data; and apply sound practices to better manage health care projects characterized by complexity and uncertainty.

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 433 Information Security Planning and Needs Assessment (3)

Prerequisite: IFSM 301. In-depth practice in developing an information security plan that documents security solutions for an enterprise business application. The aim is to analyze a business environment to assess information security risks, identify security requirements and controls to address threats and vulnerabilities and conduct appropriate evaluation and cost-benefit analysis, and develop a comprehensive information security plan. Topics include the identification of security requirements based on business needs; key domains based on industry-accepted standards and best practices, including standard National Institute of Standards and Technology (NIST) and International Organization for Standardization (ISO) frameworks; the roles and responsibilities of the ISSM (information systems security manager) and the ISSO (information systems security officer); and the need for ongoing monitoring and updating of information security plans to address new vulnerabilities and emerging threats. Students may receive credit for only one of the following courses: CSIA 303, IFSM 430, IFSM 433, or IFSM 498N.

IFSM 438 Information Systems Project Management (3)

Prerequisite: IFSM 300. 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: CMIS 320, IFSM 311, and IFSM 438. 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 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)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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.) Prerequisite: 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 management concepts. Emerging issues and trends in information systems management are considered.

Japanese

Courses in Japanese (designated JAPN) may be applied as appropriate (according to individual program requirements) toward

- the general education requirement in the arts and humanities;
- a major or minor in East Asian studies; and
- electives.

UMUC offers a limited number of foreign language courses each session.

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.

Journalism

Courses in journalism (designated JOUR) may be applied as appropriate (according to individual program requirements) toward

- the general education requirement in writing (JOUR 201 only);
- a major or minor in communication studies;
- a minor in journalism; and
- electives.

JOUR 201 fulfills the general education requirement in communications.

UMUC offers only a limited number of courses each session in this discipline.

JOUR 201 Introduction to News Writing (3)

(Fulfills the general education requirement in communications.) Prerequisite: WRTG 101 or ENGL 101. 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 202 Editing for Mass Communication (3)

Prerequisite: JOUR 201. Presentation of the basic editing skills that apply to print and electronic media. The objective is to make informed and ethical editorial decisions; edit stories for style, mechanics, and content; and write headlines and cutlines for publication. Hands-on practice in copyediting, fact checking, headline writing, photo selection, and page layout is provided. Students may receive credit for only one of the following courses: JOUR 202 or JOUR 310.

JOUR 319 Special Topics in Journalism (1)

An investigation of special topics in journalism and related fields. May be repeated when topics differ.

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 331 Public Relations Techniques (3)

Prerequisite: JOUR 330. An exploration of public relations techniques. The aim is to write a comprehensive public relations plan and to create and communicate messages targeting audiences through traditional and emerging media. Students may receive credit for only one of the following courses: BMGT 398U or JOUR 331.

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JOUR 350 Photojournalism in the Digital Age (3)

(Students are required to use their own digital SLR camera.) Prerequisite: Understanding of and experience using the full manual operation of a digital SLR camera. An exploration of techniques and trends in photojournalism. The aim is to analyze and evaluate images, evaluate photojournalistic images for ethical considerations, and graphically communicate news effectively. Assignments include developing a mini portfolio of short photo essays and a final story project to be published on the course website. Topics include history of photojournalism, webzines, online newspapers, ethical considerations, aesthetic considerations, professional expectations.

JOUR 371 Introduction to Feature Writing (3)

Prerequisite: JOUR 201. A study of various types of feature articles for magazines, newspapers, and online media. The objective is to choose appropriate topics and write an effective feature story, compose feature leads, and organize and write feature articles in appropriate journalistic style. Practice in interviewing sources and in researching and writing the feature article is provided.

JOUR 459 Special Topics in Mass Communication (3)

Prerequisite: WRTG 101 or WRTG 101S. Recommended: COMM 300 or a journalism course. An in-depth study of a specific area in journalism or public relations. Topics may focus on areas such as international public relations, crisis communication, newsroom management, environmental journalism, or political campaigns. Assignments include advanced reading and research. May be repeated to a maximum of 6 credits when topics differ.

JOUR 486A Workplace Learning in Journalism (3)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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.

Legal Studies

Courses in legal studies (designated LGST) may be applied as appropriate (according to individual program requirements) toward

- a major in legal studies;
- a minor in law for business; and
- electives.

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.

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 composition of legal documents or the 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.

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LGST 322 Evidence (3)

Prerequisite: LGST 201. A study of the rules, procedures, and techniques for obtaining evidence that can be used in civil and criminal litigation. The goal is to retrieve, organize, track, and prepare evidence for use in litigation and apply knowledge of the rules and procedures to develop a case strategy that supports the effective and ethical representation of a variety of clients. Students may receive credit for only one of the following courses: LGST 322, PLGL 222, or PLGL 322.

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 327 Alternative Dispute Resolution (3)

An overview of the various processes and techniques to settle disputes without court adjudication. Topics include negotiation, mediation, and arbitration. The objective is to evaluate the appropriateness of various methods of dispute resolution and prepare applicable documents, evidence, and arguments for use in various dispute resolution forums to support client objectives. Emphasis is on the preparation of documents, evidence, and arguments for use in alternative dispute resolution. Students may receive credit for only one of the following courses: LGST 327, PLGL 327, or PLGL 398G.

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.

LGST 335 Elder Law (3)

Prerequisite: LGST 201. A focused study of the legal issues relevant to the aging U.S. population. The aim is to apply communication, interpersonal, and advocacy skills consistent with the rules of professional conduct to support the resolution of elder law issues. Topics include housing, health care, quality of life, and financial matters. Emphasis is on conducting research and drafting legal writings using applicable law and factual information to support elder client objectives. Students may receive credit for only one of the following courses: LGST 335, PLGL 335, or PLGL 398E.

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 345 Landlord Tenant Law (1)

A practical study of landlord/tenant issues. The objective is to conduct legal and factual research and draft writings or complete forms while employing common methodologies to support the resolution of client issues. Topics include the rights and obligations of landlords and rights of tenants.

LGST 411 Consumer Protection Law (3)

Prerequisite: LGST 201. An overview of consumer protection law and the roles of federal, state, and local agencies. The objective is to apply communication, interpersonal, and advocacy skills to identify and analyze consumer protection law issues; research applicable law and factual information to determine appropriate judicial or administrative remedies; draft legal writings and complete standardized forms; and use effective office and case management methods to support the functioning of a consumer protection law practice. Topics include debt, credit, consumer goods, and fraud. Students may receive credit for only one of the following courses: LGST 411 or PLGL 411.

LGST 415 Intellectual Property Law (3)

Prerequisite: LGST 201. An overview of intellectual property law, including patents, trademarks, and copyrights. The goal is to conduct online legal and factual research; draft documents and applications; and analyze issues that arise when supporting objectives related to the intellectual property of clients. Discussion covers online tools for searches and the policies and procedures of the U.S. Patent and Trademark Office and Library of Congress for registering intellectual property. Assignments include legal research and written analysis. Students may receive credit for only one of the following courses: LGST 415, PLGL 398D, or PLGL 415.

LGST 425 Administrative Advocacy (3)

Prerequisite: LGST 301. A practical, skills-based study of the methods used for client advocacy in areas of administrative law. The goal is to develop and implement case strategies for interviewing a client, appearing at an administrative hearing, and appealing an adverse decision. Topics include legal and factual research, writings that inform and advocate, administrative procedures, and advocacy skills at administrative hearings. Students may receive credit for only one of the following courses: LGST 425 or PLGL 398N.

LGST 442 Business Organizations (3)

Prerequisite: LGST 201. Recommended: LGST 340. An overview of the legal aspects of establishing, organizing, developing, and operating a business enterprise and the processes, procedures, and writings for which a paralegal may be responsible. Assignments include legal research and written analysis. Students may receive credit for only one of the following courses: LGST 442, PLGL 342, or PLGL 442.

LGST 450 Bankruptcy Law (3)

Prerequisite: LGST 201. A study of the bankruptcy code and related rules of procedure. The objective is to identify and analyze issues related to bankruptcy petitions and debtor and creditor rights. Focus is on researching applicable law and factual information related to bankruptcy law to draft legal writings, completing bankruptcy forms, and employing effective office and case management methods to support the functioning of a bankruptcy law practice. Students may receive credit for only one of the following courses: LGST 450 or PLGL 450.

LGST 460 Law Office Management (3)

A comprehensive study of management systems in law office settings. The aim is to evaluate office systems and practices and make recommendations that comply with ethical requirements and best practices regarding systems within various law office settings. Topics include systems for file and records management, docket control, timekeeping and billing, managing client funds, and handling law firm revenues and expenses; the role of technology within all of these systems; and ethical rules.

LGST 486A Workplace Learning in Legal Studies (3)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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 Professional Practice (3)

(Intended as a final capstone course to be taken in a student's the last 9 credits of 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

Courses in library skills and information literacy (designated LIBS) may be applied toward

• the general education requirement in information literacy; and

• electives.

Degree-seeking students must complete LIBS 150 (or present its equivalent in transfer) during the first 18 credits of enrollment at UMUC.

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 UMUC Information and Library Services' 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

Courses in marketing (designated MRKT) may be applied as appropriate (according to individual program requirements) toward

• a major in marketing, business administration, human resource management, or management studies;

• a minor in marketing, business administration, international business, or small business management and entrepreneurship;

• a certificate in Management Foundations; and

• electives.

MRKT 310 Marketing Principles (3)

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 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)

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.

MRKT 395 Managing Customer Relationships (3)

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)

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 412 Marketing Research (3)

Prerequisites: STAT 230 (or BMGT 230) 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 global organizations 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.

MRKT 457 E-Marketing (3)

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 e-consumer expectations into an e-marketing plan, analyze effective website design, evaluate competitive e-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, or MRKT 457.

MRKT 475 Selling and Sales Management (3)

Prerequisite: MRKT 310. A comprehensive study of the selling function of integrated marketing communications and sales management. The goal is to design and evaluate a customer-centered selling strategy and to organize and manage a sales department and sales force. Pertinent concepts of behavioral science are applied to the management of the sales effort. Students may receive credit for only one of the following courses: BMGT 455 or MRKT 475.

MRKT 486A Workplace Learning in Marketing (3)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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, 410, and 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

Courses in mathematics (designated MATH) may be applied as appropriate (according to individual program requirements) toward

- the general education requirement in mathematics (with the exception of MATH 009 and 012);
- a minor in mathematical sciences;
- a major in computer science; and
- electives.

Students who are planning to major or minor in management, computing, or science-related fields (such as business administration or computer and information science) or the biological or social sciences should consider courses from sequence I. Students who are planning a major or minor in computer science, mathematical sciences, or the physical and engineering sciences should consider courses from sequence II. Students in other majors or minors should refer to their chosen curriculum for mathematics requirements.

Sequence I

MATH 009	Introductory Algebra
MATH 012	Intermediate Algebra
MATH 106	Finite Mathematics
MATH 107	College Algebra
MATH 220	Elementary Calculus I
MATH 221	Elementary Calculus II
Approved course in statistics	

Sequence II

MATH 009	Introductory Algebra
MATH 012	Intermediate Algebra
MATH 115*	Pre-Calculus
MATH 140	Calculus I
MATH 141	Calculus II
MATH 240	Introduction to Linear Algebra
MATH 241	Calculus III

    * or MATH 107–108

Degree-seeking students must complete the general education requirement in mathematics (or present the equivalent in transfer) during their first 18 credits of enrollment at UMUC.

Placement tests are required for enrollment in MATH 012, 106, 107, 108, 115, 140, and 220. Students may visit *www.umuc.edu/testing* for times and locations of tests or contact Exams and Testing Services by phone at 800-888-UMUC, ext. 2-2600, or by e-mail at *exams@umuc.edu.*

Students are expected to own and use scientific calculators in all mathematics and statistics courses.

MATH 009 Introductory Algebra (3)

(Not open to students who have already successfully completed a higher-level mathematics course. Does not apply toward degree requirements. Yields institutional credit only.) A comprehensive review of real number properties and operations, including fractions, percentages, operations with signed numbers, and geometric formulas. The objective is to develop fluency in the language of introductory algebra; develop number sense and estimation skills; and use mathematical modeling to translate, solve, and interpret applied problems. Topics include linear equations and inequalities, equations of lines, graphs on number lines and rectangular coordinate systems, rules of exponents, and operations on polynomials. Students may receive credit for only one of the following courses: MATH 009, MATH 009M, or MATH 100.

MATH 012 Intermediate Algebra (3)

(Not open to students who have already successfully completed a higher-level mathematics course. Does not apply toward degree requirements. Yields institutional credit only.) Prerequisite: MATH 009 or an appropriate result on the placement test. A study of problem-solving techniques in intermediate-level algebra. The goal is to demonstrate number sense and estimation skills; interpret mathematical ideas using appropriate terminology; manipulate, evaluate, and simplify real-number and algebraic expressions; and translate, solve, and interpret applied problems. Emphasis is on numbers and algebraic properties, graphing skills, and applications drawn from a variety of areas (such as finance, science, and the physical world). Topics include polynomials; factoring; exponents and their notation; rational expressions and equations; rational exponents and radical expressions; linear, quadratic, and other equations; and inequalities. Students may receive credit for only one of the following courses: MATH 012, MATH 101, MATH 101M, MATH 102, MATH 102M, MATH 199A, or MATH 199M.

MATH 106 Finite Mathematics (3)

(Not intended for students planning to take MATH 107 or higher-numbered mathematics courses.) Prerequisite: MATH 012 or an appropriate result on the placement test. A study of mathematical models in finite mathematics, including linear models, systems of linear equations, linear programming, sets and counting, probability, descriptive statistics, and the mathematics of finance. The aim is to demonstrate fluency in the language of finite mathematics; find, solve, and graph linear equations and inequalities; describe sample spaces and events; assign probabilities to events and apply probability rules; and apply the mathematics of finance to formulate and solve problems.

MATH 107 College Algebra (3)

(The first course in the two-course series MATH 107–108. An alternative to MATH 115). Prerequisite: MATH 012 or an appropriate result on the placement test. 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 107–108. An alternative to MATH 115.) Prerequisite: MATH 107 or an appropriate result on the placement test. 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.) Prerequisite: MATH 012 or an appropriate result on the placement test. 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.

INFORMATION ON COURSES

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, MATH 140, or MATH 220.

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, MATH 141, or MATH 221.

MATH 220 Elementary Calculus I (3)

Prerequisite: MATH 107, MATH 115, or an appropriate result on the placement test. A presentation of the basic ideas of differential and integral calculus. Emphasis is on elementary techniques of differentiation, as well as applications to business and life sciences. The goal is to evaluate standard limits involving the elementary functions, including limits at infinity and one-sided limits; determine relative and absolute maxima and minima; and use differential and integral calculus in solving problems from business, economics, environmental studies, health care, and the life sciences. Students may receive credit for only one of the following courses: MATH 130, MATH 131, MATH 140, or MATH 220.

MATH 240 Introduction to Linear Algebra (4)

Prerequisite: MATH 140. An explication of the basic concepts of linear algebra. The aim is to analyze and evaluate matrices to determine solvability and solve systems of linear equations. Topics include systems of linear equations, linear transformations, vectors, vector spaces, matrix separations, products and separations, subspaces, bases, and linear independence. 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 400, or MATH 461.

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 381 Operations Research (3)

Prerequisite: MATH 240. An exploration of the science of modeling and the optimization of real-world problems using mathematics, statistics, and computers. The objective is to model and solve problems and make informed, optimal decisions, subject to constraints of time, labor, resource, materials, and business regulations.

MATH 402 Algebraic Structures I (3)

(The first in a two-course sequence on algebraic structures.) Prerequisite: MATH 141. An overview of algebraic structures. The aim is to construct mathematically correct and concise proofs. Topics include techniques of proofs, set theory, and group theory, and the application of those techniques.

MATH 403 Introduction to Abstract Algebra (3)

(The second in a two-course sequence on algebraic structures.) Prerequisite: MATH 402. A continued study of algebraic structures. Topics include rings, polynomial rings, irreducible polynomials, integral domains, vector spaces, fields, finite fields, and Galois theory. The objective is to synthesize mathematical concepts and theories to make informed and effective decisions.

MATH 450 Logic for Computer Science (3)

Prerequisites: CMSC 150 and MATH 141. A presentation of the fundamental tools and propositional and first-order logic required in computer science. Topics include truth and interpretation, validity, provability, soundness, completeness and incompleteness, and decidability and semidecidability. The aim is to apply mathematical logic in the field of computer science, use formal frameworks to construct logical arguments, and evaluate the soundness and completeness of deductive systems.

MATH 463 Complex Variables (3)

Prerequisite: MATH 141. An examination of the theory and practice of complex variables to enrich study of differential equations 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.

MATH 466 Numerical Analysis (3)

Prerequisite: MATH 246. An introduction to numerical analysis. The objective is to communicate mathematical ideas, analyze large-scale problems, and apply concepts of numerical analysis to practical problem solving. Topics include single nonlinear equations and systems of linear equations, numerical differentiation and integration, multivariate least squares, interpolation, polynomial approximation, and data compression. Discussion also covers numerical integration and solution of linear systems. Applications may include coupled mechanical and electrical systems, economics, and population dynamics.

MATH 486A Workplace Learning in Mathematics (3)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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.

MATH 486B Workplace Learning in Mathematics (6)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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.

Music

Courses in music (designated MUSC) may be applied as appropriate (according to individual program requirements) toward

- the general education requirement in the arts and humanities; and
- electives.

UMUC offers a limited number of courses each session in this discipline.

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

Courses in natural science (designated NSCI) may be applied as appropriate (according to individual program requirements) toward

- the general education requirement in the biological and physical sciences;
- a major in biotechnology or laboratory management;
- a minor in natural science; and
- electives.

NSCI 100 Introduction to Physical Science (3)

(For students not majoring in a science.) Prerequisite: MATH 012 or higher. 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 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)

(For students not majoring or minoring in a science. Fulfills the laboratory science requirement only with previous or concurrent credit for NSCI 100.) Prerequisite: MATH 012 or higher. 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)

(For students not majoring or minoring in a science. Fulfills the laboratory science requirement.) Prerequisite: MATH 012 or higher. 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 170 Concepts of Meteorology (3)

(For students not majoring or minoring in a science.) Prerequisite: MATH 012 or higher. 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 Laboratory in Meteorology (1)

(For students not majoring or minoring in a science. With NSCI 170, fulfills the laboratory science requirement only with previous or concurrent credit for NSCI 170 or GNSC 170.) Prerequisite: MATH 012 or higher. 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 Organization and Management (3)

(Does not fulfill the general education requirement in the biological and physical sciences.) Recommended: WRTG 101 or WRTG 101S. An overview of the day-to-day organization and management of research and development laboratories. The aim is to manage personnel, space, inventory, equipment, and safety and health compliances, as well as to communicate effectively in different formats with a broad array of stakeholders. Topics include laboratory operating systems, finances and recordkeeping, communication systems, safety regulations and procedures, data management, project planning, problem solving, procurement, personnel matters and training, and inventory execution and maintenance. Students may receive credit for only one of the following courses: GNSC 301, MEDT 301, or NSCI 301.

NSCI 362 Environmental Change and Sustainability (3)

A multidisciplinary study of the global environment and human impact on it. The goal is to apply scientific reasoning to make informed decisions about the role of human activity on global environmental sustainability. Emphasis is on the concept of sustainability as it applies to human interactions with the environment. Current scientific research is used to explore the scientific, social, and global implications of environmental issues such as global warming, population growth, energy resources, biodiversity, and the genetic modification of organisms. Discussion covers the environment as "global commons" and individual responsibility in environmental sustainability. 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.

Nursing

Courses in nursing (designated NURS) may be applied as appropriate (according to individual program requirements) toward

- a major in nursing for registered nurses.

NURS 300 Science and Research in Nursing (3)

(Open only to students majoring in nursing for registered nurses.) An introduction to the basic concepts of nursing research. Discussion covers nursing research history, philosophy, and methods as they relate to the development of nursing theory and practice. Emphasis is on understanding the research process, critically analyzing nursing research, and evaluating and applying results to nursing practice. Topics include the scientific process, evaluation of research literature, research methods and empirical protocols, and ethical issues in research.

NURS 350 Global Health Issues (3)

(Open only to students majoring in nursing for registered nurses.) 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 health care 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 response preparation.

NURS 360 Health Assessment (3)

(Open only to students majoring in nursing for registered nurses.) An overview of the role of the professional nurse in performing comprehensive health assessments. The aim is to conduct comprehensive and holistic health assessments, formulate thorough plans of care based on current research findings and tailored to the patient's individual needs, and recognize health deviations and anticipate treatment outcomes. Emphasis is on developing communication skills. Topics include diversity, special populations, care across the lifespan, and recognizing deviations in health.

NURS 380 Business Principles and Nursing (3)

A study of fundamental business principles and their relationship to nursing practice. The aim is to analyze needs and effectively manage projects and resources and apply sound business principles and technology to nursing practice and health care delivery. Focus is on how business practices can inform and improve health care delivery.

NURS 400 Diversity in Nursing (3)

(Open only to students majoring in nursing for registered nurses.) An examination of diversity within a clinical setting. The goal is to analyze cultural factors to make decisions, solve problems, and communicate effectively. Emphasis is on communicating effectively in a multicultural environment.

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 interpret, evaluate, and analyze data and clinical evidence as an integral part of nursing care. Emphasis is on developing critical-thinking skills to apply research findings to clinical practice. Topics include the collection, evaluation, and dissemination of evidence; the evaluation of sources of information; safety measures; quantitative and qualitative research; and ethical conduct of research.

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 legislative process, and an examination of how nurses can use political advocacy strategies to influence health care policies. The goal is to apply interpersonal, communication, and advocacy skills appropriately to support the nursing profession and apply social justice principles to the delivery of health care to diverse populations. Students may receive credit for only one of the following courses: NURS 390 or NURS 420.

NURS 460 Family and Community Health Nursing (3)

(Open only to students majoring in nursing for registered nurses.) Prerequisite: NURS 360. An overview of the role of the professional nurse in the care of the family and community. Assessment skills are applied to the family and community. The objective is to examine, assess, and develop plans of care for families and communities. Topics include diversity, care across the lifespan, environmental influences, and families at risk. Assignments involve surveying a community and interacting with community leaders. Students may receive credit for only one of the following courses: NURS 310 or NURS 460.

NURS 486A Workplace Learning in a Clinical Setting (3)

(Open only to students majoring in nursing for registered nurses.) Prerequisite: 9 credits in the discipline, including NURS 300, and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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.

NURS 486B Workplace Learning in a Clinical Setting (6)

(Open only to students majoring in nursing for registered nurses.) Prerequisite: 9 credits in the discipline, including NURS 300, and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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.

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 student's last 9 credits.) Prerequisite: NURS 410. A study of leadership theories, skills, and techniques used in the nursing profession to deliver high-quality patient care in a variety of settings. The aim is to apply appropriate leadership, management, and communication skills to situations involving different stakeholders in a health care setting. Assignments include the development and implementation of a quality improvement project in a patient care setting.

Nutrition

Courses in nutrition (designated NUTR) may be applied as appropriate (according to individual program requirements) toward

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

UMUC offers only a limited number of courses each session in this discipline.

NUTR 100 Elements of Nutrition (3)

A study of the fundamentals of human nutrition. The changing nutritional needs of individuals and families are explored. Students may receive credit for only one of the following courses: NUTR 100 or NUTR 200.

Philosophy

Courses in philosophy (designated PHIL) may be applied as appropriate (according to individual program requirements) toward

- the general education requirement in the arts and humanities;
- a major or minor in East Asian studies or humanities;
- a minor in philosophy or women's studies; and
- electives.

UMUC offers only a limited number of courses each session in this discipline.

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 127 Living Religions of the World (3)

An examination of the cultural construction of religious and nonreligious identity within the diverse world community. The goal is to understand the role of religion in current events. Discussion covers the world's major living religious traditions: Hinduism, Buddhism, Christianity, Judaism, and Islam. Students may receive credit for only one of the following courses: HUMN 127, PHIL 127, or RLST 125.

PHIL 140 Contemporary Moral Issues (3)

An exploration of how philosophical analysis can serve as a foundation for thinking clearly about moral issues. The aim is to offer rational argument about ethical problems. Problems analyzed include such widely debated issues as abortion, euthanasia, the death penalty, homosexuality, pornography, reverse discrimination, business ethics, sexual equality, and economic equity. Students may receive credit for only one of the following courses: HUMN 300 or PHIL 140.

PHIL 315 Ethical Issues in American Business (3)

(Formerly HUMN 311.) A thematic exposition of ethical issues in contemporary American business. The goal is to improve awareness of ethical issues in business by recognizing and analyzing ethical problems in the business context. Emphasis is on the application of ethical theory and reasoning to specific real-world business issues. Discussion covers workplace issues such as discrimination, harassment, the quality of work life, professional rights and responsibilities, and specific cases exemplifying these issues. Possible examples include cases in the areas of hiring, privacy, intellectual property, whistle-blowing versus loyalty, health care, ethics in advertising, consumerism in relation to product liability, economic globalization, and the common environment. Students may receive credit for only one of the following courses: HUMN 310, HUMN 311, or PHIL 315.

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 dissent 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.

INFORMATION ON COURSES

Psychology

Courses in psychology (designated PSYC) may be applied as appropriate (according to individual program requirements) toward

- the general education requirement in the behavioral and social sciences;
- a major in psychology, gerontology and aging services, or social science;
- a minor in psychology, diversity awareness, gerontology and aging services, or women's studies; and
- electives.

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 101 Psychology of Adjustment (3)

(Formerly PSYC 235.) A survey of psychological principles and their applications to areas such as stress coping strategies, social influence, interpersonal communication, relationships, careers and work, and physical health. The objective is to apply knowledge of the scientific approach and psychological principles to issues of adjustment in everyday life. Students may receive credit for only one of the following courses: PSYC 101 or PSYC 235.

PSYC 300 Research Methods in Psychology (3)

(Formerly PSYC 305.) Prerequisites: PSYC 100 and STAT 225 (or PSYC 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.

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.

PSYC 310 Sensation and Perception (3)

Prerequisite: PSYC 100. Recommended: PSYC 300 and 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)

Prerequisites: 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 334 Psychology of Interpersonal Relationships (3)

Prerequisite: PSYC 100. A study of interpersonal dynamics and how relationship skills can result in healthy or unhealthy behaviors, from the beginning to the end of a relationship. The goal is to apply knowledge of interpersonal dynamics to evaluate behaviors. Discussion covers effective communication and conflict resolution skills, as well as ways that advances in technology have altered societal understandings of interpersonal dynamics.

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 biological, 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 342 Foundations of Learning (3)

(Formerly PSYC 441.) Prerequisite: PSYC 100. Recommended: STAT 225 (or PSYC 200) and PSYC 300. A review and analysis of the major phenomena and theories of human learning. The objective is to provide students with the foundations of learning and practical applications of the theories. Topics include: conditioning, the application of behavior analysis to real-world problems, and laboratory techniques in learning research. Students may receive credit for only one of the following courses: PSYC 342 or PSYC 441.

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 352 Child and Adolescent Psychology (3)

Prerequisite: PSYC 100. Recommended: PSYC 300. An examination of research and theory focusing on psychological development, from conception through adolescence. The objective is to apply knowledge of child and adolescent development through critical and creative analysis of cases and situations. Topics include physiological, conceptual, and behavioral changes and the social and biological context in which individuals develop. Students may receive credit for only one of the following courses: PSYC 352, PSYC 355, or PSYC 356.

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 357 Adulthood and Aging (3)

Prerequisite: PSYC 100. Recommended: PSYC 300. An overview of the development of physiological, intellectual, and interpersonal social functioning from early adulthood through the end of life. The objective is to apply knowledge of adult development critically and creatively to explain particular cases. Topics include theory and research in adult development.

PSYC 361 Industrial and Organizational Psychology (3)

Prerequisite: PSYC 100. Recommended: PSYC 300 and 321. A general survey of the field of industrial/organizational psychology. The objective is to examine the behavioral, sociocultural, and ethical factors that influence workplace environments. Topics include entering into the organization and evaluating and changing individual workplace behaviors.

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 415 History and Systems (3)

(Recommended as preparation for graduate study in psychology.) Prerequisite: PSYC 300. A study of the origins of psychology in philosophy and biology and the development of psychology as a science in the 19th and 20th centuries. The objective is to apply an understanding of historical context, integrating various communities of thought, to analyze emerging trends in psychology. Discussion covers theorists and theories and the influence of societal events.

PSYC 432 Introduction to Counseling Psychology (3)

Prerequisite: PSYC 100. Recommended: PSYC 300 and 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 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.

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 451 Tests and Measurements (3)

Prerequisites: PSYC 100 and 300. An examination of concepts and theories of psychological tests, measurements, and assessments, including their development, evaluation, and use. The goal is to evaluate measurements and determine appropriate applications. Discussion covers social, legal, cultural, and ethical issues in psychological testing.

PSYC 486A Workplace Learning in Psychology (3)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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.

PSYC 486B Workplace Learning in Psychology (6)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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.

PSYC 495 Senior Seminar in Psychology (3)

(Intended as a final, capstone course to be taken in a student's last 15 credits.) Prerequisites: Completion of all requirements for the psychology major except supplemental coursework. 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

Courses in public safety administration (designated PSAD) may be applied as appropriate (according to individual program requirements) toward

- a major or minor in public safety administration; and
- electives.

PSAD 302 Introduction to Public Safety Administration (3)

Prerequisite: WRTG 101 or WRTG 101S. 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 implementation 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 416 Public Safety Leadership (3)

Prerequisite: PSAD 304. 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 on p. 215 and online at *www.umuc.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 486B Workplace Learning in Public Safety Administration (6)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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)

Prerequisites: PSAD 306, PSAD 408, PSAD 410, PSAD 414, PSAD 416. An intensive study of public safety administration that integrates knowledge gained through previous course-work 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

Courses in sociology (designated SOCY) may be applied as appropriate (according to individual program requirements) toward

- the general education requirement in the behavioral and social sciences;
- a major in social science;
- a minor in sociology, African American studies, diversity awareness, or women's studies; and
- electives.

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 105 Introduction to Contemporary Social Problems (3)

An exploration of various personal, institutional, cultural, historical, and global problems that confront American society today. Problems range from drugs, divorce, crime, mental illness, and alienation in modern society to the environment and national and global economic and political conflicts. Special attention is paid to issues of technology and social change. Students may receive credit for only one of the following courses: SOCY 105 or SOCY 210.

SOCY 252 Sociology of the Holocaust (3)

Recommended: SOCY 100. An introductory sociological examination of the Holocaust as a case study of mass genocide. The aim is to apply sociological principles and concepts to examine the groups of individuals associated with the Holocaust (perpetrators, victims, bystanders, resistance fighters, liberators) and evaluate the moral and ethical lessons of the Holocaust for the contemporary world. Topics include the cultural context of the Holocaust; the role of anti-Semitism in the Holocaust; perpetrator agency, extreme prejudice, propaganda, and victimization; and life after the Holocaust.

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 attitudes regarding work, leisure, and recreation 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 312 Family Demography (3)

Prerequisite: SOCY 100 or SOCY 243. A study of the family and population dynamics. The aim is to identify, evaluate, and interpret data sources and develop an informed opinion about family trends and current policy. Discussion covers issues of fertility (such as teenage pregnancy, the timing of parenthood, and determinants and consequences of family size) as they relate to family behavior (such as marital patterns, the use of child-care options, and the relationship between work and the family).

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, as well as 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 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 Minorities in the United States (3)

Prerequisite: SOCY 100. An examination of basic social processes in the relations of minority groups in the United States. The aim is to analyze current and historical events and use sociological tools to critically evaluate ethnic and racial issues.

SOCY 424 Race and Ethnic Relations (3)

Prerequisite: SOCY 100. An analysis of race- and ethnic-related issues in society. The goal is to examine, analyze, project future trends in, and communicate effectively about minority/majority issues. Discussion covers the impact of inequality, prejudice, and discrimination on minority/majority relations. Topics include theories of race relations; the historical emergence, development, and institutionalization of racism; effects of racism; conflicts that are racially and ethnically based; and contemporary issues.

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 432 Social Movements (3)

Prerequisite: SOCY 100. An advanced study of social movements. The aim is to distinguish the common characteristics, categories, and classifications of social movements; apply major sociological theories and paradigms to social movements; and evaluate how social movements contribute to social change. Topics include the history and life cycle of social movements, the influence of the media on the evolution of social movements, and the impact and legacies of social movements.

SOCY 443 Sociology of the Family (3)

Prerequisite: SOCY 100. An advanced examination of the family in society. The aim is 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; contrast micro- and macro-level interactions among individuals, families, and society; and evaluate the influence of media and technology on the perception and cohesion of the modern family. 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 464 Military Sociology (3)

Prerequisite: SOCY 100. An advanced examination of the U.S. military from a sociological perspective. The aim is to differentiate the roles of officer and enlisted corps; analyze health, morale, and welfare issues in today's armed forces; evaluate the legal and political components of military/civil relations; and assess the changing impact of the U.S. military nationally and globally. Topics include military structure, military doctrine, ethics, justice, sustainability, and the future of the U.S. military. Discussion analyzes current military events from a sociological perspective.

SOCY 473 Cities and Communities (3)

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)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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

Courses in software development (designated SDEV) may be applied as appropriate (according to individual program requirements) toward

- the general education requirement in computing;
- a major in software development and security, digital media and web technology, or information systems management; and
- electives.

SDEV 300 Building Secure Web Applications (3)

Prerequisite: CMIS 242, CMIS 225, or CMIS 215. A hands-on study of best practices and strategies for building secure applications for the web. The objective is to defend against web application vulnerabilities. Topics include web application architecture, common threats and trends, cross-site scripting, SQL injection, input validation, and business logic flaws.

SDEV 325 Detecting Software Vulnerabilities (3)

Prerequisite: CMIS 242, CMIS 225, or CMIS 215. 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 aim 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.

SDEV 355 Securing Mobile Applications (3)

Prerequisite: CMIS 215. 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. Topics include mobile device infrastructure, security models, mobile applications, code analysis systems, web and back-end application attacks, and scripting exploits.

SDEV 360 Secure Software Engineering (3)

Prerequisite: CMIS 242, CMIS 225, or CMIS 215. An in-depth examination 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 development cycle, 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 studying and 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)

Prerequisite: SDEV 325. 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 risks and threats associated with application development. The objective is to identify valuable assets, create system architecture diagrams, decompose applications, identify and rate threats, and document results in the threat model. Topics include security requirements and objectives, threat identification and mitigation, and calculating risk.

SDEV 460 Penetration Testing (3)

Prerequisite: SDEV 360. A hands-on study of exploits, attacks, and techniques used to penetrate application security defenses and the mitigations of such attacks. The goal is to apply appropriate methodologies for penetration testing to identify application weaknesses and logic flaws and test and create scripts for exploitation and discovery. Topics include web architecture.

Spanish

Courses in Spanish (designated SPAN) may be applied as appropriate (according to individual program requirements) toward

- the general education requirement in the arts and humanities;
- a certificate in Spanish for Business and the Professions; and
- electives.

Students with prior experience in the Spanish language—through study or living abroad, informal learning from friends or family, or high school or other coursework that did not transfer to UMUC—should take a placement exam before enrolling. Students with oral proficiency in Spanish who wish instruction in written Spanish should also take the placement test.

UMUC offers a limited number of foreign language courses each session.

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.

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 312 Advanced Spanish II (3)

Prerequisite: SPAN 311 or appropriate score on placement test. Continued in-depth review and expansion of communication skills in Spanish. The goal is to deliver detailed reports and discuss current topics 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 302 or SPAN 312.

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. 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)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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

Courses in speech communication (designated SPCH) may be applied as appropriate (according to individual program requirements) toward

- the general education requirement in communications;
- a minor in speech communication, communication studies, diversity awareness, or women's studies;
- a major in communication studies, East Asian studies, or laboratory management; and
- electives.

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 200 Advanced Public Speaking (3)

Prerequisite: SPCH 100, SPCH 101, SPCH 107, or SPCH 108. A hands-on, activity-based study of public speaking. The goal is to improve public speaking skills. Practice is provided in preparing and delivering various types of speeches.

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.

SPCH 397 Professional Presentations (3)

Prerequisite: An upper-level intensive writing course (WRTG 391, WRTG 393, or WRTG 394). A hands-on, activity-based study of the creation and delivery of professional presentations. The goal is to improve professional presentation skills. Prospective audiences are assessed. Emphasis is on researching, developing, and delivering multimedia presentations to achieve the goals and expectations of both presenter and audience.

SPCH 426 Conflict Management (3)

Prerequisite: Any SPCH course or COMM 300. A comprehensive investigation and evaluation of conflict management strategies and tools. The goal is to analyze conflict situations and develop and apply strategies to manage and/or resolve them at the lowest possible level of conflict. Topics include identifying causes of interpersonal conflict, evaluating the impact of culture and gender differences on conflicts, and selecting appropriate tools to manage and resolve conflict in students' personal and professional lives.

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.

SPCH 486A Workplace Learning in Speech (3)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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.

SPCH 486B Workplace Learning in Speech (6)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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.

Statistics and Probability

Courses in statistics and probability (designated STAT) may be applied as appropriate (according to individual program requirements) toward

- a minor in psychology;
- the statistics requirement for a variety of majors and minors; and
- electives.

UMUC offers a limited number of courses each session in this discipline.

Students are expected to own and use scientific calculators in all mathematics and statistics courses.

STAT 200 Introduction to Statistics (3)

Prerequisite: MATH 103, MATH 106, or MATH 107 (preferably in the last two years). 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 225 Introduction to Statistical Methods for the Behavioral Sciences (3)

Prerequisite: MATH 103, MATH 106, or MATH 107 (preferably in the last two years). Recommended: PSYC 100 or an introductory social sciences course. An introduction to quantitative methods in behavioral science and psychological research. 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. Discussion covers ethics in research involving humans and animals. Topics include the measurement of variables, measures of central tendency and dispersion, correlation, statistical inference and probability, normal distribution, hypothesis testing, t-tests, analysis of variance, and chi-square. Statistical software is used to analyze and present data. 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 230 Introductory Business Statistics (3)

Prerequisite: MATH 103, MATH 106, or MATH 107 (preferably in the last two years). An introduction to the essential concepts of statistics for business and management. 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. Emphasis is on applications in business and management. Topics include sampling methods; measures of dispersion and central tendency; probability; random variables; binomial experiments; normal distribution; hypothesis testing; z-, t- and chi-square tests; margin of error and confidence intervals; linear regression and correlation; and analysis of variance (ANOVA). Software programs are used to analyze and present data. 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 I (3)

Prerequisite: MATH 141. An intermediate study of statistical 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.

STAT 410 Introduction to Probability Theory (3)

Prerequisites: MATH 240 and 241. A calculus-based exposition of probability theory. The goal is to apply quantitative analyses of natural phenomena and human activities that involve large sets of data and provide informed descriptions of complex systems based on only partial knowledge of their states. Topics include random variables, distribution functions in one dimension and several dimensions, moments, characteristic functions, and limit theorems.

STAT 450 Regression and Variance Analysis (3)

Prerequisite: STAT 400. A study of statistical techniques for large-scale data analyses. The aim is to apply statistical methods to investigate, analyze, and draw optimal inferences on large sets of data from natural phenomena and human activities based on only partial knowledge of their states. Topics include ANOVA, MANOVA, multiple-regression analysis, the Gauss-Markov theorem, fixed-effects models, linear regression model, general regression model, and experimental designs

STAT 486A Workplace Learning in Statistics (3)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.edu/ coop*). 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.

STAT 486B Workplace Learning in Statistics (6)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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.

Theatre

Courses in theatre (designated THET) may be applied as appropriate (according to individual program requirements) toward

- the general education requirement in the arts and humanities; and
- electives.

UMUC offers a limited number of courses each session in this discipline.

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

Courses in women's studies (designated WMST) may be applied as appropriate (according to individual program requirements) toward

- a major in social science;
- a minor in women's studies; and
- electives.

UMUC offers a limited number of courses each session in this discipline.

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.

INFORMATION ON COURSES

Workplace Learning

Workplace Learning extends education beyond the traditional classroom by integrating career-related work opportunities with the student's field of study.

Workplace Learning courses carry the designator of the appropriate academic discipline and the number 486A or 486B. Workplace Learning courses may not be applied toward any general education requirements or some majors and minors. Students are responsible for consulting their advisor about applying Workplace Learning credit to their degree program.

More details and contact information for Workplace Learning are available on p. 215. Details are also available online at *www.umuc.edu/wkpl*.

Writing

Courses in writing (designated WRTG) may be applied as appropriate (according to individual program requirements) toward

- the general education requirement in communications;
- a major in communication studies or English;
- a minor in communication studies or contract management and acquisition;
- a certificate in Project Management; and
- electives (including related requirements in various majors).

Degree-seeking students must complete WRTG 101 or WRTG 101S (or present its equivalent in transfer) during their first 18 credits of enrollment at UMUC. WRTG 101 or WRTG 101S is prerequisite to all writing courses with higher numbers and most courses in English and communication studies. Placement tests are required for enrollment in WRTG 101. Students may visit *www.umuc.edu/testing* for times and locations of tests or contact Exams and Testing Services by phone at 800-888-UMUC, ext. 2-2600, or by e-mail at *exams@umuc.edu*.

WRTG 391, 393, and 394 are designated as upper-level advanced writing courses and may be applied toward the general education requirement in upper-level advanced writing.

Specific WRTG courses may be recommended in relation to specific majors and minors. Students should check the descriptions of their curricula.

The description of the general education requirements begins on p. 8.

WRTG 100 Introduction to Writing and Grammar (3)

(Fulfills the general education requirement in communications.) Practice in effective writing and clear thinking at all levels, including the sentence and paragraph, with emphasis on the essay and the integration of research into one's writing. An intensive review of grammar is provided. Focus is on organizing, developing, and writing academic essays. The goal is to apply specific steps within the writing process, including formulating purpose, identifying an audience, selecting and using research resources and methods of development, and completing other rhetorical tasks. Revision and recursive writing practice are emphasized and encouraged. Assignments include a comparison-contrast analysis, a cause-effect analysis, a research-supported essay, and a final reflective paper. Students may receive credit for only one of the following courses: ENGL 101, ENGL 101X, WRTG 100, WRTG 101, WRTG 101S, or WRTG 101X.

WRTG 101 Introduction to Writing (3)

Prerequisite: Satisfactory performance on a placement test or EDCP 103. Practice in effective writing and clear thinking at all levels, including the sentence and paragraph, with emphasis on the essay and research report. The objective is to apply specific steps within the writing process, including formulating purpose, identifying an audience, and selecting and using research resources and methods of development. Revision and recursive writing practice are emphasized and encouraged. Assignments include comparison-contrast and research essays, as well as other rhetorical tasks. Students may receive credit for only one of the following courses: ENGL 101, ENGL 101X, WRTG 101, WRTG 101S, or WRTG 101X.

WRTG 101S Introduction to Writing (3)

(Fulfills the general education requirement in communications.) Practice in effective writing and clear thinking at all levels, including the sentence and paragraph, with emphasis on the essay and the integration of research into one's writing. An intensive review of grammar is provided. Focus is on organizing, developing, and writing academic essays. The goal is to apply specific steps within the writing process, including formulating purpose, identifying an audience, selecting and using research resources and methods of development, and completing other rhetorical tasks. Revision and recursive writing practice are emphasized and encouraged. Assignments include a comparison-contrast analysis, a cause-effect analysis, a research-supported essay, and a final reflective paper. Students may receive credit for only one of the following courses: ENGL 101, ENGL 101X, WRTG 100, WRTG 101, WRTG 101S, or WRTG 101X.

WRTG 289 Principles of Text Editing (3)

(Fulfills the general education requirement in communications. Students needing basic grammar review are strongly advised to take ENGL 281 first.) Prerequisite: WRTG 101 or WRTG 101S. Recommended: ENGL 281. An introduction to the principles of text editing. The aim is to document situations, make and justify editing decisions, address a range of critical concerns, and select and use editing tools. Emphasis is on the relationships among editors, authors, and audiences and the publication process. Students may receive credit for only one of the following courses: ENGL 278F or WRTG 289.

WRTG 291 Research Writing (3)

(Fulfills the general education requirement in communications.) Prerequisite: WRTG 101 or WRTG 101S. 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)

Prerequisite: WRTG 101 or WRTG 101S. 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 387 Theories and Methods of Teaching Writing (3)

Prerequisite: WRTG 101 or WRTG 101S. A study of tutoring for writing. The goal is to develop the theoretical knowledge and practical skills in writing, research, and critical thinking needed to be effective as a tutor, particularly of writing. Topics include strategies for effective online tutoring, the ethics of tutoring, the writing process, and the diverse writing challenges students face and techniques to overcome them. Discussion also covers the opportunities and challenges of online tutoring and online writing pedagogy.

WRTG 391 Advanced Research Writing (3)

(Fulfills the general education requirement in upper-level advanced writing.) Prerequisite: WRTG 101 or WRTG 101S. Instruction and practice in academic research skills. The objective is to critically analyze scholarly sources and effectively integrate source material into a complex argument. Assignments include prewriting exercises, a critique, a critical annotated bibliography, a literature review, and a statement of proposed research. 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 101 or WRTG 101S. 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 101 or WRTG 101S. 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 to 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.

WRTG 486A Workplace Learning in Writing (3)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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.

WRTG 486B Workplace Learning in Writing (6)

Prerequisite: 9 credits in the discipline and prior program approval (requirements detailed on p. 215 and online at *www.umuc.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.

WRTG 489 Advanced Technical Editing (3)

(Fulfills the general education requirement in communications.) Prerequisites: WRTG 393, WRTG 394, COMM 393, or COMM 394 and advanced knowledge of grammar. A project-driven study of technical editing and the role of the editor. The aim is to analyze and plan complex editing projects, address a range of critical concerns, and apply visual design strategies. Students may receive credit for only one of the following courses: COMM 491, ENGL 489B, or WRTG 489.

WRTG 490 Writing for Managers (3)

(Formerly WRTG 390. Fulfills the general education requirement in communications.) Prerequisite: WRTG 101 or ENGL 101. 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.

WRTG 493 Contemporary Trends in Technical Writing (3)

(Formerly COMM 490.) Fulfills the general education requirement in writing, but not in upper-level advanced writing.) Prerequisite: WRTG 393. An analysis and study of contemporary trends in technical writing. The aim is to analyze technical scenarios and use emerging technologies and contemporary media to develop communication solutions for a variety of audiences. Focus is on nontraditional approaches to effective technical communication, including the use of multimedia, social media, and other emerging technologies. Students may receive credit only once under this course number and for only one of the following courses: COMM 490, ENGL 489A, or WRTG 493.

WRTG 494 Grant and Proposal Writing (3)

(Fulfills the general education requirement in communications.) Prerequisite: WRTG 393, WRTG 394, COMM 393, or COMM 394. 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.

WRTG 496 Writing for Technology and Applied Sciences (3)

(Formerly COMM 496.) Fulfills the general education requirement in writing, but not in upper-level advanced writing.) Prerequisite: WRTG 393. An analysis and study of writing about technology and applied sciences. The goal is to blend technical expertise and writing skills in order to design and develop appropriate communication for specialized audiences. Students may receive credit for only one of the following courses: COMM 496 or WRTG 496.

ACADEMIC AND ADMINISTRATIVE REQUIREMENTS

UMUC standards for academic rigor consider the degree to which students demonstrate content mastery, application of critical thinking skills, and adherence to UMUC's code of academic integrity.

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 the grade point average (GPA) and in determining eligibility for financial aid and veterans educational benefits. However, students required to take these courses do so in addition to the 120 units of graduation credit required for the degree.

Grading Methods

There are four grading methods at UMUC. The most commonly used is the standard method. The pass/fail alternative is available only under limited conditions. The satisfactory/D/fail method is restricted to certain specified courses. Any course may be audited. Regulations for each are given in the following paragraphs.

Grade	Interpretation	Quality Points
A	Outstanding *Performance excels far above established standards for university-level performance*	4
B	Superior *Performance is above established standards*	3
C	Good *Performance meets established standards*	2
D	Substandard *Performance is below established standards*	1
F	Failure *Performance does not meet minimum requirements*	0
FN	Failure for nonattendance	0
G	Grade under review	0
P	Passing (D or higher)	0
S	Satisfactory (C or higher)	0
I	Incomplete	0
AU	Audit	0
W	Withdrawal	0

Standard

Unless students choose either the pass/fail or audit option at the time of registration, they will be given a letter grade according to the standard method. Under the standard grading method, students are given a grade of A, B, C, D, or F on the basis of their performance in meeting the requirements of each course. For only a very few courses, the standard grading method is replaced by the satisfactory/D/fail method.

Pass/Fail

Degree-seeking students who have earned 30 credits (including at least 15 credits at UMUC) and who have a cumulative grade point average of 2.0 may take one course of up to 6 credits each standard term (fall, spring, or summer) on a pass/fail basis, up to a maximum of 18 credits. Students must elect pass/fail grading at the time of registration. This status may not be changed after the first week of classes.

This grading method is allowed only for electives. Required courses (e.g., general education courses and courses for the major and minor) 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.

Students who register for pass/fail grading must still complete all the regular requirements of the course. The teacher evaluates the work under the normal procedure for letter grades and submits a regular grade. Grades of A, B, C, or D are then converted to the grade P, which is entered into the permanent record. A grade of F remains unchanged.

Although a grade of P earns credit toward graduation, it is not included in calculating a grade point average. A failing grade carries no credit, and the failing grade is included in the computation of grade point averages.

Satisfactory/D/Fail

This grading method is available only on a limited basis. 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 failing grade (F) earns no credit, it is included in computing grade point averages.

Audit

Students who do not wish to receive credit may register for courses as auditors after being admitted. Students must indicate this intention when they register. Students may request a change from credit to audit status anytime before the end of the first week of classes. Auditing students do not have to complete

course assignments, but may choose to do so to receive faculty feedback on their 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.

Grades and Marks

Passing: The Grade of P

The grade of P is conferred after a teacher has evaluated course-work under the normal procedure for letter grades and has submitted a standard grade (A, B, C, or D). Then 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.

Satisfactory: The Grade of S

The grade of S is equivalent to a grade of C or higher. This grade is used to denote satisfactory progress in an experiential setting or practicum, such as EXCL 301. Although the grade of S confers credit and appears on the permanent record, courses graded S are not used in determining grade point averages.

Failure: The Grade of F

The grade of F means a failure to satisfy the minimum require-ments of a course. Although it carries no credit, it is included in calculating the grade point average. A student assigned the grade of F must register again for the course, pay the applicable fees, repeat the course, and earn a passing grade to receive credit for that course.

Failure for Nonattendance: The Grade of FN

The grade of FN means a failure in the course because the stu-dent has not attended or participated in course assignments and activities. It is assigned when the student ceases to attend class or fulfill requirements but has not officially withdrawn.

Grade Under Review: The Mark of G

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.

Incomplete: The Mark of I

The mark of I (incomplete) is an exceptional mark given only to students whose work in a course has been satisfactory but who for reasons beyond their control have been unable to complete all the requirements of a course. The following criteria must be met:

- The student must have completed at least 60 percent of the work in the course with a grade of C or better.
- The mark of I must be requested before the end of the course.

The procedure for awarding the mark of I is as follows:

- The student must ask the teacher for a mark of I. (Teachers cannot award a mark of I on their own initiative.)
- The teacher decides whether to grant the request.
- The teacher sets a date for completion of the remaining requirements of the course.
- The teacher and the student together agree on the remaining requirements of the course and the deadline for submitting the work.
- The student is responsible for completing the work.
- After the work is completed, the teacher submits a grade change to replace the mark of I on the student's record with a grade.

If the mark of I is not made up by the agreed-upon deadline (which is not to exceed the maximum time allowed after sub-mission of the original grade), the I is changed to an F. Students should refer to UMUC policy 170.71 Policy on Grade of Incom-plete at *www.umuc.edu/policies* for details.

Students should be aware that a mark of I in their final semester may delay graduation.

The mark of I cannot be removed by means of credit by exami-nation, nor can it be replaced by a mark of W (defined below). Students who elect to repeat an incomplete course must regis-ter again for the course, pay all applicable fees, and repeat the course. For purposes of academic retention, the course grade is counted as an F. The mark of I is not used in determining grade point averages.

Withdrawal: The Mark of W

Students may receive the mark of W by officially withdrawing from a course. Ceasing to attend class does not constitute an official withdrawal. Procedures for withdrawing are detailed on the UMUC website at *www.umuc.edu/withdraw.* Students must withdraw from a course before 65 percent of the total number of days in a session has expired. (For intensive format courses, withdrawals must be submitted before the close of business on the first day of class.)

For most courses, this mark appears on the permanent record unless withdrawal is completed before the end of the schedule adjustment period. For intensive format courses, students must withdraw before the class starts to avoid a mark of W.

For purposes of academic retention, the mark of W is counted as attempted hours. It is not used in determining grade point averages.

Changes in Grade

Teachers may change a grade previously assigned through MyUMUC, the university's online academic and administrative services portal. Any change must be made no later than four months after the original grade was awarded.

Grading Repeated Courses

When a course is repeated, only the higher grade earned in the two attempts is included in the calculation of the GPA.

For purposes of academic retention, both attempts are counted. Both grades are entered on the permanent record, with a notation indicating that the course was repeated. Students cannot increase the total hours earned toward a degree by repeating a course for which a passing grade was conferred previously.

To establish credit in a course previously failed or withdrawn from, students must register, pay the full tuition and fees, and repeat the entire course successfully.

Repeated Registration for a Course

No student may register more than three times for the same course. Registering more than three times for the same course (including courses previously attempted at other institutions in the University System of Maryland) is generally forbidden. It may be allowed only under special circumstances, with prior approval of an advisor.

Grades and Quality Points

The grade point average (GPA) is calculated using the quality points assigned to each grade or mark (chart on p. 201). 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, D, or F was received.

GPAs are computed separately for each degree after the first bachelor's degree. Only courses applied toward a second bachelor's degree are computed in the GPA for that degree, even if the student earned a first degree at UMUC; only courses applied

toward a master's degree are computed in the GPA for that degree, even if the student is a graduate of The Undergraduate School at UMUC.

Academic Warning and Dismissal

At the end of every term (fall, spring, or summer), the cumulative grade point average of each student who has attempted at least 15 credits at UMUC is computed based on all UMUC graded coursework. The Office of the Registrar then takes action, required by UMUC policy, according to the student's level of progress as described below.

There are four levels of academic progress: satisfactory, warning, probation, and dismissal. Students in warning, probation, or dismissal status are notified of their status approximately three weeks after the end of the term. For students in warning or probation status, this notification is sent via e-mail to their e-mail address of record. For students in dismissal status, notification is sent by letter to their permanent address of record. No notification is sent to students making satisfactory progress.

Inquiries about a student's academic progress may be sent to *SAAcademicStanding@umuc.edu.*

Levels of Progress

SATISFACTORY

A student whose cumulative grade point average is 2.0 or higher is considered to be making satisfactory progress.

WARNING

A student whose cumulative GPA is less than 2.0 will be placed on academic warning. The student will remain on academic warning as long as the cumulative GPA is less than 2.0—even if the GPA for the term is 2.0 or better.

A student who attempts 15 credits or more in a period of at least two sequential standard terms and earns no quality points will receive an academic warning regardless of the cumulative grade point average.

A student on academic warning whose GPA for the term is 2.0 or better, but whose cumulative GPA is less than 2.0, will continue on warning until he or she has completed courses at UMUC that raise the cumulative GPA to 2.0 or better.

A student on academic warning is limited to a maximum enrollment of 7 credits per standard term or to a maximum of 4 credits per eight-week session. Additional limitations may apply during the student's first term on academic warning.

ACADEMIC AND ADMINISTRATIVE REQUIREMENTS

PROBATION

A student on academic warning or admitted on provisional status whose GPA for the term is less than 2.0 will be put on probation.

A student on probation whose GPA for the term is 2.0 or better, but whose cumulative GPA is less than 2.0, will return to academic warning or provisional status.

A student on academic probation is limited to a maximum enrollment of 7 credits per standard term and 4 credits per eight-week session. Additional limitations may apply during the student's first term on academic probation.

DISMISSAL

A student on probation whose GPA for the term is less than 2.0 will be dismissed.

Regardless of cumulative GPA, a student who has maintained an average of at least 2.0 during a particular term will not be dismissed at the end of that period. A student who is dismissed is ineligible to register again for UMUC courses until he or she is reinstated.

Reinstatement After Dismissal

A student seeking reinstatement is required to wait at least one semester before petitioning to return. The petition for reinstatement should be addressed to the Reinstatement Committee and e-mailed to *reinstatements@umuc.edu.*

Students who wish to be reinstated must first contact the Center for Student Success. Center personnel will assist the student through the process of reinstatement.

After all the required steps are completed, the student will receive a written response from the committee. Reinstated students are placed on academic warning and may be required to meet certain conditions, such as participation in the mentoring program or use of tutoring services. They may also be subject to additional term enrollment limitations during their first term after they return to study.

Deadlines for requesting reinstatement are as follows:

Fall enrollment	July 15
Spring enrollment	November 15
Summer enrollment	April 15

Further information is provided in UMUC policy 158.00 Academic Levels of Progress, available online at *www.umuc.edu/policies.*

Scholastic Recognition

Dean's List

Students who complete at least 6 credits (in courses graded A, B, C, D, or F) with a GPA of at least 3.5 in a term and a cumulative GPA of 3.5 at UMUC are eligible for the dean's list.

Students who fail to earn the required average by the end of the term must complete a minimum of 6 more credits during the next term to be considered for the dean's list again. All courses taken during the term are used in computing the average, even though the total number of credits may exceed 6. A term is designated as fall, spring, or summer. Eligibility for the dean's list is calculated once each year.

Students who make the dean's list will be notified via e-mail of their achievement by the Office of the Dean, the Undergraduate School.

Academic Honors

Academic honors for excellence in scholarship are determined by the student's cumulative GPA at UMUC. The distinction of *summa cum laude* is conferred on those students with a cumulative GPA of 4.000; *magna cum laude* honors are conferred on those students with a cumulative GPA of 3.901 to 3.999; *cum laude* honors are conferred on those students with a cumulative GPA of 3.800 to 3.900. To be eligible for any of these categories of recognition, a student must have earned at least 45 credits at UMUC in courses for which a letter grade and quality points were assigned. For honors to be conferred with a second bachelor's degree, the student is required to have a total of 45 new UMUC credits and the requisite GPA. (More information on attaining a second bachelor's degree may be found on p. 9.)

Honor Societies

Inquiries concerning honor societies should be addressed to the student's advisor.

ALPHA SIGMA LAMBDA

UMUC students are eligible for membership in Alpha Sigma Lambda, the national honor society for students in continuing higher education. To qualify for membership, a student must be pursuing a first bachelor's degree; have completed at least 30 credits at UMUC in courses graded A, B, C, D, or F; and maintained a GPA of 3.7 or higher in all UMUC courses.

At least 15 credits, from UMUC or transferred, must be in courses outside the major.

LAMBDA PI ETA

Membership in Lambda Pi Eta, the official communication studies honor society of the National Communication Association, is open to qualified UMUC students. To be eligible, students must have earned at least 60 credits toward the bachelor's degree, including at least 30 credits at UMUC and 12 credits in communication studies, with a GPA of 3.5 or higher both in communication studies and overall coursework.

NATIONAL SOCIETY OF COLLEGIATE SCHOLARS

The National Society of Collegiate Scholars is an honor society recognizing students who have completed fewer than 60 credits toward an associate's or a bachelor's degree and have shown academic excellence. The honor society encourages students 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, students must be seeking a first associate's or bachelor's degree. Students must have completed at least 12 credits at UMUC in courses graded A, B, C, D, or F and have a cumulative GPA of 3.4 or higher. In addition, students must have completed between 12 and 59 credits toward their degree. Students are invited to join the honor society in the spring session.

PHI ALPHA THETA

UMUC students may qualify for membership in Phi Alpha Theta, the international honor society in history. To qualify for membership, students must attain a GPA of 3.5 or higher in at least 12 credits of UMUC history courses and have an overall UMUC 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. To qualify for membership in Phi Kappa Phi, candidates must have completed at least 90 credits toward the bachelor's degree, at least 45 of which must have been for UMUC courses carrying letter grades of A, B, C, D, or F. The candidate's GPA in UMUC courses must be in the top 10 percent of the previous UMUC graduating class.

PI GAMMA MU

Pi Gamma Mu is the international honor society for the social sciences and recognizes outstanding scholarship in the social sciences at UMUC. Membership is offered to qualified students interested in anthropology, criminal justice, economics, gerontology, history, political science, social psychology, sociology, and women's studies.

Students who are in their last 60 credits of undergraduate study, have earned at least 20 hours of social science credit (including at least 9 credits at UMUC), and have a GPA that ranks in the upper 35 percent of their class may be invited to join.

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, social science (with a focus on gerontology), and related fields. Students must be in at least their second term of enrollment, have completed a minimum of 12 credits at UMUC, 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 UMUC students with a major in English. To be eligible, students 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 UMUC and must include 12 credits of English, not including WRTG 101, and 6 credits of upper-level coursework. Students must also have earned a GPA of 3.6 in English coursework at UMUC.

UPSILON PI EPSILON

The Kappa Chapter of Upsilon Pi Epsilon, the international honor society for the computing and information disciplines, is open to graduate and undergraduate students. To qualify for membership, undergraduate students must be pursuing a bachelor's degree with a major in the computing and information disciplines and must have completed at least 45 credits. Students should have completed at least 30 credits at UMUC 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. Students are inducted into the honor society twice a year.

ACADEMIC AND ADMINISTRATIVE REQUIREMENTS

Current information and links to policies and resources are available in the online *Student Handbook* at *www.umuc.edu/studenthandbook.* Students should refer to the handbook for the most current information.

Attendance and Participation

The student is responsible for attending all classes and any related activities regularly and punctually. Teachers may base part of the final grade on class participation.

For an eight-week course, students should expect to spend about six hours per week in class discussion and activities (online or on-site) and two to three times that number of hours outside the class in study, assigned reading, and preparation of assignments. Courses offered in shorter intensive formats require more time per week. Students are expected to achieve the same intended learning outcomes and do the same amount of work in an online course as they would in an on-site course. Active participation is required in all online courses, and students should expect to log in to their online courses several times a week.

Absence from class does not excuse a student from missed coursework. The student is responsible for obtaining detailed information about missed class sessions, including their content, activities covered, and any announcements or assignments. Failure to complete any required coursework may adversely affect the student's grade. Teachers are not expected to repeat material that a student has missed because of the student's absence from class.

Technology Use

Internet Access

UMUC is committed to ensuring that students acquire the level of fluency in information technology they need to participate actively in contemporary society and have access to up-to-date resources. All UMUC students must be prepared to participate in asynchronous, computer-based class discussions, study groups, online database searches, course evaluations, and other online activities whether their course is held online or in a classroom.

All UMUC students must therefore ensure that they have access to the Internet and have a current e-mail address. If the student does not have Internet access through a home computer, he or she may use one at a UMUC computer lab, a university or public library, or another source. However, that source should be regularly available, and the student may need to be able to submit assignments electronically.

The most current technical requirements are available online at *www.umuc.edu/techreq.*

Electronic File Sharing

Peer-to-peer programs permit computers to share data in the form of music, movies, games, computer files, and software.

All users of the UMUC network are required to comply with federal copyright laws. UMUC network users are not permitted to share unauthorized copyrighted material over the UMUC network, whether on personally owned or on university computers.

Any unauthorized distribution of copyrighted materials on the university network, including peer-to-peer file sharing, is a violation of federal law and UMUC policies. Violations may lead to disciplinary proceedings and, in some cases, civil and criminal legal action. UMUC's computing resources policies can be found online at *www.umuc.edu/computerresource.* UMUC's computer use policy can be found at *www.umuc.edu/computerpolicy.*

More information on how to legally download music is available on the Recording Industry Association of America website at *www.riaa.com.* Information on how to legally download movies and television programs is provided on the Motion Picture Association of America website at *www.mpaa.org.*

Examinations

The student is responsible for obtaining information about quizzes and examination schedules and policies.

Exams and Testing Services *(www.umuc.edu/testing)* schedules sessions for placement exams and some standardized exams for which credit may be possible. There may be a fee for this service.

Course Load

For official data, full-time enrollment is defined as 12 or more credits per semester and half-time as 6–11 credits per semester.

Decisions on the number of courses a student can successfully complete in any one session are normally left to the student's discretion. It should be noted, however, that the majority of UMUC students register for between 3 and 7 credits, and students are strongly advised not to exceed this limit. Students should carefully and realistically assess other commitments before registering for more than 7 credits. In no case may a student register for more than 18 credits in a 17-week period without written permission from an advisor. Permission to register for more than 18 credits is at the university's discretion and is based on demonstrated academic excellence at UMUC. A minimum GPA of 3.5 and an enrollment history indicating success in carrying a heavier-than-average course load at UMUC are required.

No student may register for courses whose scheduled meeting times overlap.

Academic Integrity

Integrity in teaching and learning is a fundamental principle of a university. UMUC believes that all members of the university community share the responsibility for academic integrity, as expressed in the University System of Maryland policy "Faculty, Student, and Institutional Rights and Responsibilities for Academic Integrity." Details are available from the Office of the Dean, The Undergraduate School.

At UMUC, faculty members are expected to establish classroom environments conducive to the maintenance of academic integrity by promptly giving students a complete syllabus describing the course and its requirements, grading submitted work promptly and adequately, and arranging appropriate testing conditions.

Students at UMUC are expected to conduct themselves in a manner that will contribute to the maintenance of academic integrity. Failure to maintain academic integrity (academic dishonesty) may result in disciplinary action.

Students are responsible for understanding and avoiding academic dishonesty and plagiarism, whether intentional or unintentional. The definitions of academic dishonesty and plagiarism and the procedures for pursuing complaints of academic dishonesty are described in UMUC policy 150.25 Academic Dishonesty and Plagiarism, which can be found at *www.umuc.edu/policies* or is available from the Office of the Dean, The Undergraduate School.

Appealing a Grade

The established performance standards for a course grade are communicated in the syllabus and other course materials. If a student believes that his or her grade was not based on such standards, he or she may pursue the appeal process for arbitrary and capricious grading. Procedures for appealing a grade are detailed in UMUC policy 130.80 Procedures for Review of Alleged Arbitrary and Capricious Grading, which is available from the Office of the Dean, The Undergraduate School, or online at *www.umuc.edu/policies.*

There is a time limit for appealing a grade. Therefore, students who want to appeal a grade must initiate the process within 30 days of the posting of the grade.

Code of Student Conduct

Students are subject to UMUC policy 151.00 Code of Student Conduct, which can be found at *www.umuc.edu/policies* or is available from the Office of the Registrar. Violations of the code are considered to be violations of UMUC policy and are grounds for discipline by UMUC. Allegations of misconduct by UMUC students should be referred to the provost.

Student Grievance Procedures

The procedures necessary to file a formal complaint concerning the actions of members of the UMUC faculty or administrative staff are detailed in UMUC policy 130.70 Student Grievance Procedures, which is available at *www.umuc.edu/policies* or from the Office of the Dean, The Undergraduate School. Students who wish to seek redress for the acts or omissions of a faculty or staff member 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.

Change of Address

Students who move during the session not only should leave a forwarding address with the U.S. Postal Service but also should notify UMUC by updating their personal information through MyUMUC.

Transfer of Credits from UMUC

To have credits earned through UMUC transferred, each student must obtain authoritative guidance from the destination institution (including other institutions in the University System of Maryland). Only the destination institution can answer specific questions about its own residency and degree requirements or about the applicability of UMUC courses to its curricula.

Code of Civility

To promote a positive, collegial atmosphere among students, faculty, and staff, UMUC has developed a Code of Civility, which is available in the *Student Handbook* at *www.umuc.edu/studenthandbook.*

Before the beginning of each term, UMUC holds open houses (online and on-site) for new and prospective students. These events offer an opportunity to learn about UMUC and its programs, student services, academic and career options, faculty members, and fellow students. Prospective students can be admitted and register for courses at these times.

For general information, or to be directed to specific offices, students may call 800-888-UMUC (8682). Most offices are open weekdays from 8:30 a.m. to 5 p.m. eastern time.

Admission Requirements

The admission procedures of UMUC were designed to meet the needs of adult, part-time students. Most applicants who have a high school diploma from a regionally accredited or state-approved high school in the United States—or the equivalent—can be admitted and register for undergraduate classes. All students who have not completed at least 24 credits of transferable college coursework must submit high school transcripts (or equivalent) at the time of admission. Test scores are not required. Admission of foreign-educated applicants is governed by requirements given on pp. 209–10. Students must be officially admitted to the university before they can register for classes.

UMUC policy 210.00 on Undergraduate Admission is available online at *www.umuc.edu/policies*.

Student Status

Upon being admitted to UMUC, students are assigned to regular or provisional status.

REGULAR

A qualified applicant who wants to receive credit for courses (whether he or she intends to receive a degree or not) is admitted as a regular student. For financial aid purposes, a regular student must be seeking a degree or certificate at UMUC. Admission as a regular student is granted to applicants who submit a completed, signed application and certify that they fulfill *one* of the following academic requirements:

- Have graduated from a regionally accredited or state-approved high school in the United States.
- Have passed a high school equivalency exam.

The most commonly accepted high school equivalency exam is the General Education Development (GED) test. Passing scores depend on when the test was taken:

- Before January 2002, a total score of 225 and a minimum score of 40 on each section
- From January 2002 to January 2014, a total score of 2250 and a minimum score of 410 on each section
- After January 2014, a total score of 600 and a minimum score of 150 on each section

To be granted regular admission status, students should also have maintained a cumulative grade point average of at least 2.0 (on a 4.0 scale) in all college-level work attempted at other regionally accredited colleges and universities, including other University System of Maryland institutions. However, an academic probation or dismissal that occurred at least two years before the date when the student applies for admission has no bearing on the student's admission status.

The conditions under which foreign-educated students may attain regular status are provided on p. 210.

PROVISIONAL

Two categories of students may be admitted in provisional status:

- Applicants who, during the last two years, earned a cumulative grade point average of less than 2.0 (on a 4.0 scale) at another institution and/or were academically dismissed from another institution (regardless of their cumulative grade point average).
- Foreign-educated students who have not completed at least 24 credits of transferable college coursework from a U.S. college or university.

All provisional students may enroll for a maximum of 7 credits during a fall, spring, or summer term.

Provisional students in the first category must submit transcripts from all colleges and universities they have attended during their first session of enrollment at UMUC. If the student's session grade point average at UMUC is less than 2.0, the student is placed on probation. If, while on probation, the student's session grade point average is 2.0 or better, she or he returns to provisional status. If, while on probation, the student's session and cumulative grade point averages are less than 2.0, he or she is dismissed and must follow the standard reinstatement procedures that apply to all dismissed students. The student's status is automatically changed to regular after the student has successfully completed 7 credits of graded coursework with a cumulative grade point average of 2.0 or higher.

Students in the second category, i.e., those educated abroad, must submit official transcripts verifying completion of the equivalent of a U.S. secondary education and prove English

proficiency. They are eligible for regular admission status once UMUC has verified these qualifications. Details are on pp. 209–10.

Procedures for Admission

To apply for admission, students must complete an undergraduate admission application and pay the nonrefundable fee. Applicants who intentionally provide false information on their application are subject to disciplinary action, as detailed in UMUC policy 151.00 Code of Student Conduct (available online at *www.umuc.edu/policies)*. Applications for admission may be submitted online through MyUMUC *(https://my.umuc. edu).* Deadlines for admission and registration are listed in the current undergraduate schedule of classes.

Determination of Residency for Tuition Purposes

An initial determination of in-state or out-of-state status for tuition purposes is made when a student applies for admission. The determination made at that time remains in effect thereafter unless it is successfully challenged. The student is responsible for providing the information necessary to establish eligibility for in-state status. Official criteria for determining residency are available at *www.usmd.edu/regents/bylaws/SectionVIII.*

Further information on tuition and fees may be found on p. 211.

Reenrollment

Undergraduate students who have not attended UMUC for two years must file a new application with Undergraduate Admissions before they will be allowed to register. However, they need not pay another application fee.

Transfer from UMUC Europe or UMUC Asia

Students who have attended UMUC overseas within the last two years and who wish to attend UMUC in the United States must complete a divisional transfer form. This form is located on the websites of the overseas divisions. There is no fee for divisional transfers.

FORWARDING OF OVERSEAS STUDENTS' RECORDS

Records of students formerly enrolled in UMUC Europe or UMUC Asia are retained in the Office of Admission and Registration of that program. If such a student later enrolls in UMUC stateside, the student's records are then requested by the Office of the Registrar. (**Note:** Records of students who attended UMUC at its former campus in Schwäbisch Gmünd, Germany, are now retained at UMUC headquarters in Adelphi, Maryland.)

Admission of College Graduates

A student who has received a bachelor's degree from an approved U.S. institution is automatically admissible to UMUC as a regular (undergraduate) student upon submission of the admission application and fee. A former graduate student in the University System of Maryland whose time limit in a program has expired may also be admitted as a regular (undergraduate) student. Students who have been admitted to UMUC as graduate students may take undergraduate courses only when satisfying approved prerequisites or as part of an approved articulation agreement. Students may be admitted as either undergraduate or graduate, but may not be admitted in both categories at the same time.

Students from Other USM Institutions

Undergraduate students from other institutions of the University System of Maryland may take undergraduate courses without applying to UMUC. Instead, they must either submit a letter of permission from their department or complete a "Notification of Registration with University of Maryland University College" form, certifying good standing and eligibility to return to the last institution attended. Graduate students from other institutions of the University System of Maryland may also take undergraduate courses without applying to UMUC, but must pay graduate tuition and related fees. Transferability of academic work completed at UMUC is determined by the student's home institution. Undergraduate courses taken by graduate students may not be applied toward graduate degree requirements.

Noncitizens and Foreign-Educated Students

ADDITIONAL DOCUMENTATION

Prospective students who are not U.S. citizens or who received their secondary school education outside the United States may be required to provide additional documentation related to high school equivalency, English language proficiency, or visa or immigration status, as detailed below.

1. If the applicant has earned fewer than 24 credits at a U.S. college or university, he or she must verify completion of the equivalent of a U.S. secondary education by the end of their first term of study at UMUC by submitting one of the following:
   – An evaluation from an approved international credit evaluation agency (Details are available online at *www. umuc.edu/internationalcredit.*)
   – Official transcripts showing successful completion of a U.S. high school equivalency exam, such as the GED

2. If English is not the student's native language, the student must demonstrate college-level proficiency in written English by presenting documentation of *one* of the following:

- Graduation from a U.S. high school or regionally accredited university
- A grade of C or higher in an English composition course from an approved U.S. college or university
- A minimum score of 550 on a written version or 79 on the Internet-based version of the TOEFL (Test of English as a Foreign Language)
- A minimum score of 6.5 on the International English Language Testing System (IELTS), including the academic writing and reading modules
- A minimum score of Grade Pre-1 on the EIKEN Test in practical English proficiency

Applicants must arrange to have official score reports sent directly from the testing agency to undergraduate admissions. All scores (TOEFL, IELTS, EIKEN) must be no more than two years old.

3. Noncitizens who plan to study while resident in the United States (as opposed to studying online from abroad) must provide information on visa or immigration status. To do so, students should enclose with the admission application a copy of their permanent resident card, their visa and I-94 card, or an approval notice from U.S. Citizenship and Immigration Services noting their visa or immigration status.

   J-1 visa holders attending other schools must submit a letter of permission from their sponsoring institution before registration each semester.

ADMISSION STATUS

Foreign-educated students who have earned 24 credits at a U.S. college or university may be admitted in regular status. Students who do not meet this criterion are admitted provisionally and may register for a maximum of 7 credits. Once verification of high school equivalency is received, their status is changed to regular and they may register for up to 18 credits. Students are not permitted to register for subsequent semesters until verification is received.

Applicants Previously Suspended or Dismissed

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

Applicants academically suspended or dismissed from other institutions within the previous two years, regardless of their cumulative grade point average, may be admitted as provisional students. They must fulfill the requirements for provisional status. Details are given on p. 208.

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

Concurrent Secondary Enrollment

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

Golden Identification Card for Senior Citizens

Senior citizens may qualify for admission and a Golden Identification Card. Participants in the Golden Identification Card program may register for two courses that total up to 7 credits each session for credit, on a space-available basis, without paying tuition. They may enroll during the final week of registration and must pay all fees. Credits and fees associated with Portfolio must also be paid.

To qualify for the Golden Identification Card, the prospective student must meet all of the following criteria:

- Be a resident of Maryland.
- Be a U.S. citizen or produce a resident alien card (formerly an alien registration card).
- Be 60 years of age by the beginning of the session being applied for.
- Not be employed more than 20 hours a week.

Students may consult an advisor for further 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. Students should check the current undergraduate schedule of classes or the online academic calendar *(www.umuc.edu/calendar)* for registration deadlines.

UMUC offers a number of ways to register for most courses, including online (via MyUMUC) and on-site registration. Detailed information and instructions are available each session online at *www.umuc.edu/register* and in the undergraduate schedule of classes.

The Waiting List

If a class is already full at the time of registration, the student has the option of placing his or her name on a waiting list for that class.

WAITING LIST POLICIES

Regardless of how the student registers, the following policies apply:

- Students may put their name on the waiting list for only six courses or sections.
- Students may not attend a class for which they are on the waiting list.
- Faculty members and academic advisors are not authorized to add students to a closed class.
- If a space becomes available, the first student on the waiting list will automatically be registered for it, and the charge will appear on his or her account. An e-mail will be sent to notify the student of the enrollment. If that student is ineligible for enrollment (because he or she has not met prerequisites or is enrolled in another class that conflicts in time), the space will go to the next person on the waiting list.

Students who no longer want a class should remove their name from the waiting list to prevent the possibility of automatic enrollment.

Withdrawals or Dropped Courses

Stopping payment on checks for registration fees, or not paying at registration, does not constitute an official withdrawal or relieve the student of his or her financial obligation to UMUC. Never attending or ceasing to attend class(es) does not constitute a withdrawal.

Students who officially withdraw from a course after the schedule adjustment period receive a mark of W (described on p. 202). Undergraduate students must officially withdraw before 65 percent of the total number of days in a session has expired.

Policies and procedures for withdrawing from a course are available online at *www.umuc.edu/withdraw*. Students receiving financial aid are strongly encouraged to contact the Financial Aid Office before withdrawing to fully understand the impact on their current and future aid. Students are responsible for withdrawing themselves.

Tuition and Fees

All tuition and applicable fees must be paid in full at registration, unless the student

- Applied for financial aid to cover tuition and fees for the session.
- Is enrolled in UMUC's interest-free monthly payment plan (details are provided at *www.umuc.edu/payoptions)*.
- Submitted proof of employer-provided tuition assistance.

UMUC 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 University College)
- Electronic debit from a checking or savings account
- Cash (in person at Largo only)

Students who qualify for tuition assistance, financial aid, or veterans benefits should consult the appropriate sections of this catalog. Students interested in the monthly payment plan, administered by Educational Computer Systems, Inc. (ECSI), should contact the company at 866-927-1438 or visit *www.ecsi. net*. More information on payment is available online at *www. umuc.edu/makeapayment*.

Current Tuition and Fees

Tuition rates and fees are published each session in the undergraduate schedule of classes and are available on the Web at *www.umuc.edu/tuition*. Students should review the fee schedule carefully to see which ones apply. Fees are commonly charged for applications for admission and graduation, laboratory use (in science and some computer courses), transcripts, and various options for earning credit (such as Workplace Learning, Experiential Learning, and credit by examination). There is

also a service charge for dishonored checks. Information on student classification and residency is provided at *www.usmd.edu/regents/bylaws/SectionVIII*.

Refunds

A student who withdraws from a course during the official drop period will receive a full tuition refund. A student who withdraws after the drop period will be refunded a portion of the tuition, the amount to be determined by the date of the withdrawal. Refunds for Workplace Learning courses follow university policy and are based on the date the student registered for the course. The schedule for partial refunds is provided online at *www.umuc.edu/refundpolicy.*

If the tuition for a student who withdraws was paid by employer contract, the refund is returned to the employer. If the tuition assistance was a partial payment, it is returned to the employer, and excess payments are refunded to the student. Financial aid awards may be canceled or reduced for financial aid recipients who withdraw from classes. Financial aid recipients should check with a financial aid advisor when withdrawing from a course to determine the impact on their awards.

No offer of financial aid is considered an active, final award until the refund period has ended. Students who withdraw before the end of that period are liable for all costs incurred and are billed accordingly.

Dishonored Checks

For each check returned unpaid by the payer's bank (whether because of insufficient funds, stopped payment, postdating, or drawing against uncollected items), UMUC assesses a service charge of $30 (over and above any service charges levied by the financial institution).

A student who stops payment on a check for tuition is thereby neither disenrolled nor relieved of responsibility for paying tuition and fees. Anyone whose checks for tuition or fees remain dishonored may be barred from classes.

Indebtedness to the University

Students who incur debts to UMUC must clear them to be permitted to register. Requests for services (including transcripts and diplomas) are denied until all debts have been paid. Outstanding debts are collected against refunds due the student. After a reasonable period of time, uncollected debts are forwarded to the Central Collection Unit of the State Attorney General's Office.

If a student fails to pay charges incurred with UMUC, UMUC has the authority to deem that account delinquent and transfer it to the State of Maryland Central Collection Unit. UMUC has also received authorization from the Board of Regents to charge students' delinquent accounts a 17 percent collection fee and/or all attorney or court costs incurred by the university. Once a past-due balance with UMUC has been transferred to the state Central Collection Unit, the student's information is reported to a credit bureau. More information may be accessed from the Student Accounts Web page at *www.umuc.edu/studentaccounts*.

Employer-Provided Tuition Assistance

If an employer is going to pay for part or all of a student's tuition, the student must submit two copies of appropriate documentation at the time of registration. Requirements are listed at *www.umuc.edu/payoptions.* Documents that restrict payment or are in any way conditional will not be accepted.

If the employer does not pay UMUC, the student is responsible for payment.

UMUC cannot issue refunds for authorizing documents submitted after registration. If the document authorizes payment for books and supplies, the student must submit a separate copy to a participating bookstore (listed at *www.umuc.edu/coursematerials)* when charging books, within 15 days after the end of the registration period.

UMUC is unlike any other institution of higher education in the world in its combination of access with academic quality. It opens doors to learning by taking education to students wherever they may be. Because UMUC 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, it incorporates the assessment of nontraditional learning (i.e., learning gained outside the classroom) into the evaluation of student competencies and academic credit.

Classroom and Online Study

UMUC uses every feasible instructional delivery mechanism or platform to extend degree opportunities to students. Most of UMUC's degree and certificate programs are available both on-site and online and allow blended formats to suit student schedules and preferences.

UMUC courses observe the same standards of quality regardless of delivery format. Any given course maintains the same intended learning outcomes and requirements, awards the identical amount of academic credit, and may be applied toward the same undergraduate degrees whether it is delivered in a stateside classroom, overseas, or via the Internet.

Both classroom and online programs are also supported by a full range of student services and academic resources—from extensive online library databases to admission, advising, and registration—that can be accessed on-site, online, and by phone (details are on pp. 219–28).

Classroom-Based Study

Students take UMUC courses in classrooms at locations in Maryland and the national capital region; in classrooms on U.S. military bases throughout Europe and Asia through long-standing partnerships with overseas military commands; and at work sites through contractual arrangements with employers. With so many course and service locations (listed online at *www.umuc.edu/locate)* available, students in the Maryland area who prefer direct interaction can be sure of finding courses and services close to home.

On-site courses are also enriched by access to online materials and resources and generally require online participation as part of UMUC's support of technology fluency for students.

Online Study

UMUC's role as a virtual and global university means that students can access and participate in the university experience from any place in the state, the nation, or the world. UMUC's award-winning online courses and programs offer a technology-enriched experience conducted by the same excellent faculty that teaches its on-site offerings.

In online courses, students are linked to faculty and classmates via computer and the Internet. The faculty member leads discussions, responds to student inquiries, and posts reviewed assignments in individual folders online. Students are expected to participate frequently in online discussions.

Online students should have strong reading and writing skills, as well as a basic knowledge of the Windows environment. Technical requirements for participating in online courses are provided online at *www.umuc.edu/techreq.*

Course Evaluations

UMUC uses student feedback to make decisions about future courses. Individual responses are kept confidential. For online and hybrid classes, the notice usually appears in the online classroom when three-quarters of the class has been completed. For on-site classes in intensive formats, students generally complete a paper evaluation in class.

Learning Gained Through Experience

Learning acquired outside the college classroom may be assessed for credit toward a degree at UMUC. Students can make use of life experience for possible college credit through Prior Learning (Portfolio or course challenge), Workplace Learning, and a variety of recognized external assessments (discussed on pp. 217–18). Details on Prior Learning and Workplace Learning follow. Advisors can help in determining the best routes to use in fulfilling any academic plan.

Prior Learning

The Prior Learning program teaches students to identify, articulate, and gain academic credit for the college-level learning they have acquired through work and life experience. Students may earn credit for college-level learning acquired outside the classroom through two avenues: course-challenge examinations and Portfolio. As many as 30 credits may be earned through a combination of course-challenge examinations and Portfolio and applied toward the bachelor's degree. However, no more than half the credits required for an undergraduate major, minor, or certificate program may be earned through Prior Learning (Portfolio and course-challenge examinations) and credit

by examination (described on pp. 217–18). Any excess credits awarded are applied where appropriate in the student's program of study.

COURSE CHALLENGE

UMUC credit can be earned for any undergraduate course for which UMUC can prepare and administer a suitable examination or assessment. Advisors and Prior Learning office staff can inform students about specific courses that may not be challenged. Degree- or certificate-seeking students at UMUC who have received an academic advisement report and have a cumulative grade point average of at least 2.0 in UMUC coursework should carefully review the rules, procedures, and limitations described at *www.umuc.edu/coursechallenge* before applying online.

Course challenge is not intended as a substitute for independent study. Students may be required to show evidence of prior learning before being authorized to challenge a course. Credit may be applied toward a first or second bachelor's degree or toward a certificate. Assessments may not be taken more than twice and also may not be taken for courses for which the student has previously enrolled. Only one course in a sequence may be challenged at a time, and students may not challenge a course that is prerequisite for a higher-level course they have already taken.

Credit earned by course-challenge assessment earns a letter grade that is computed in the grade point average. However, this credit may not be applied to the requirement for graded coursework in the student's major. Students may not receive credit for introductory courses in their native language.

Course challenges may only be canceled before the student receives the assessment. Refunds are given only if a suitable assessment cannot be prepared.

More information on course challenge may be obtained by visiting the UMUC website at *www.umuc.edu/coursechallenge* or by calling 800-888-UMUC, ext. 2-2890.

PORTFOLIO

Portfolio is a unique way for students to articulate and identify college-level learning they have gained from work, community or political involvement, or other noncollegiate experiences and gain credit for it. To be eligible for Portfolio, students must

- Complete a Portfolio application.
- Meet basic standards in writing (either by having taken a college writing course or by qualifying for WRTG 101 on the writing placement test).
- Be in good academic standing at UMUC (not on academic warning or probation).
- Have submitted all transcripts, exam scores, and military documents related to coursework and experience to the Registrar's Office for a review of transfer credit.

Enrollment in EXCL 301 Learning Analysis and Planning is required. In this 3-credit course, the student prepares a portfolio describing and documenting college-level learning gained from past experiences. Because EXCL 301 is a demanding and complex course, part-time students should not register for more than one other course during the session in which they are enrolled in EXCL 301.

Students who successfully complete EXCL 301 with a grade of S and submit a portfolio for evaluation may enroll in a supplemental class (EXCL X001) to complete additional portfolios. Such a class confers no credit and may not be applied toward degree completion. Students taking this option may not target courses for which they were denied credit in EXCL 301. Additional information on this option is available through the Prior Learning office.

EXCL 301 is graded on an S/D/F basis (explained on p. 201). If the quality of 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.

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

Experiential-learning credits may be awarded at both the upper and lower levels. Although a maximum of 30 credits may be earned through Portfolio, the average award is between 15 and 18 credits. These credits are considered UMUC resident credit. However, they do not fulfill requirements for graded coursework and so may not exceed half the total credits for a major, minor, or certificate.

Credit for EXCL 301 is charged at the current tuition rate. Fees are also charged for enrollment in the program, portfolio evaluation, any additional evaluations, and credits awarded. Golden ID students and those receiving financial aid must pay all Portfolio fees.

Students should carefully review the requirements, rules, and procedures for Portfolio. More information may be obtained at *www.umuc.edu/priorlearning* or by calling 800-888-UMUC, ext. 2-2890.

Workplace Learning

Workplace Learning offers an opportunity for students to gain experience and develop new knowledge and skills in their chosen discipline while earning upper-level college credit through an integrated model that puts theory into practice, thus enabling them to accelerate completion of both their academic and career goals.

To be eligible for Workplace Learning, students must

- Be seeking a degree or a certificate in which Workplace Learning credit may apply.
- Have completed 30 credits, including transfer credit, toward a degree (if seeking a degree).
- Have completed at least 9 credits in the discipline in which they plan to do their Workplace Learning project.
- Have completed at least 6 credits at UMUC.
- Have a GPA of 2.0 or better at UMUC.
- Be working in a position that offers an opportunity to apply classroom theory to practical projects that involve significant analysis and problem solving and are directly related to a given academic discipline. (Position may be paid or unpaid, part- or full-time.)

Students interested in pursuing a Workplace Learning experience must first apply to the program by the deadline published online at *www.umuc.edu/wkpl.* Once notified of eligibility, the student 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 faculty member in the appropriate discipline must then approve the learning proposal to ensure that it constitutes upper-level college learning. Once the learning proposal is approved, the student is given permission to register for Workplace Learning. The learning proposal is then developed into a three-way learning contract among the employer, the student, and the faculty mentor.

Throughout the Workplace Learning experience, students work under the supervision of the employer on completion of several of the identified project tasks and the faculty mentor on the completion of the academic assignments required to earn college credit for their 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. Students are required to communicate regularly with their faculty mentor throughout the Workplace Learning session, which typically lasts 15 weeks.

Students may earn either 3 or 6 credits during the Workplace Learning session. To earn 3 credits, students 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, students 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 UMUC 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 in business and management would be listed as BMGT 486A, a 6-credit 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 the student enrolls.

Students may apply up to 45 Workplace Learning credits to their bachelor's degree (12 credits for a second bachelor's degree). Certificates that include a Workplace Learning option typically accept no more than 3 credits of Workplace Learning coursework. Workplace Learning courses may not be used to satisfy general education requirements or (unless specified) required academic coursework in the major. However, Workplace Learning credits may be applied to electives as well as to designated upper-level supplemental requirements in the major or minor. A standard letter grade is awarded for successful completion of Workplace Learning courses. It is strongly recommended that students consult with a UMUC advisor to determine how Workplace Learning credits may help them fulfill degree requirements.

For more information, students should review the information, policies, and procedures detailed online at *www.umuc.edu/wkpl* or call the Workplace Learning program office at 800-888-UMUC, ext. 2-2890.

TRANSFERRING CREDIT FROM OUTSIDE SOURCES

UMUC accepts up to 90 credits from all sources combined toward the bachelor's degree (45 credits for the associate's degree). Sources include

- Approved two- and four-year colleges and universities
- Other higher education institutions with whom UMUC has a memorandum of understanding for acceptance of credit and/or a joint program
- Non-U.S. institutions based on UMUC review of an appropriate credit evaluation

UMUC may also award credit for

- Professional (not technical) noncollegiate coursework
- Military occupational specialties and experience
- Vocational and technical coursework

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- Professional or technical coursework based on statewide agreements and alliances
- Standard examinations

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

Students should be sure to discuss all previous experience and training with a new student advisor to ensure that they receive any credit that applies.

Credit Limits

Each type of credit is subject to maximum allowances, including (but not limited to)

- 70 credits (45 credits for the associate's degree) from two-year institutions
- 60 credits (30 credits for the associate's degree) for study completed in military service schools; professional credit, on the basis of American Council on Education (ACE) recommendations on credit; and innovative learning, including learning evaluated by approved standardized examinations
- 30 credits (15 credits for the associate's degree) for study completed in Military Occupational Specialties (MOSs), portfolio assessment, and/or course-challenge exams combined (with a maximum of 15 credits from portfolio assessment from a community college)
- 21 credits (12 credits for the associate's degree) of coherently related vocational and technical coursework, applicable as elective credit only.

Transfer Credit

UMUC will not award credit for courses that repeat work done elsewhere. Students who have earned credit at other colleges or universities are responsible for determining whether courses they plan to take at UMUC would duplicate any previously earned credit and for submitting all official transcripts from colleges and universities attended, as well as documentation of military and professional learning and pertinent test scores (e.g., CLEP, AP, etc.)—regardless of whether they appear on a previous college transcript or not.

Students may not pursue two degrees of the same type (associate's, bachelor's) at both UMUC and another institution using the same credits to meet both degrees.

Credit toward a UMUC degree may be assigned for work completed through the kinds of institutions described in the following sections. UMUC does not accept credits for remedial, precollege, or sectarian religious courses in transfer. A student who wants to transfer credit from other institutions to UMUC should request a review of previous credit to determine the applicability of those credits to a degree from UMUC. No transfer credit is accepted without official transcripts.

Students who are in doubt about whether a UMUC course duplicates previous study should consult an advisor before registering.

Credit from Other Colleges and Universities

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

Approved institutions include those accredited by the following regional associations:

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

Other institutions may be approved based on agreements and/or joint programs with UMUC.

Credit from Junior Colleges and Community Colleges

A total of 70 credits from approved two-year institutions (junior colleges or community colleges) may be applied toward a bachelor's degree at UMUC. A student who has already completed 70 credits may not apply further credit from a junior college or a community college to a degree from UMUC.

A student who initially enrolled in the public community colleges of Maryland will be admitted to UMUC in conformance with the policy developed and approved by the Maryland Higher Education Commission. (Details are given in the chapter on Policies.) Students participating in one of the community college alliances with UMUC should consult with their advisors at both institutions if they plan to enroll in courses at both institutions concurrently.

Credit from Institutions Outside the United States

Study at institutions outside the United States must be evaluated by an approved international credit evaluation agency. Details are available online at *www.umuc.edu/internationalcredit.*

Educational Experiences in the Armed Services

Service Schools

UMUC grants credit for military experience and study completed in service schools on the basis of the recommendations by the American Council on Education (ACE) in its *Guide to the Evaluation of Educational Experiences in the Armed Services.* Such credit is granted only if it is applicable to the student's chosen curriculum. UMUC generally accepts recommendations of ACE for lower-level and upper-level credit. Recommendations made by ACE for vocational or technical credit are considered on the same basis as, and with the same limitations as those placed on, nonmilitary sources of credit.

Community College of the Air Force

UMUC awards credit for study at technical schools of the U.S. Air Force in accordance with recommendations from the Community College of the Air Force (CCAF). Credits must be applicable to the student's chosen curriculum at UMUC, must meet other UMUC requirements for transfer credit, and are subject to the same limitations as those placed on nonmilitary credit.

- All credit from the CCAF is lower level and is applicable only to freshman and sophomore requirements.
- Since the CCAF records satisfactorily completed courses as S (satisfactory) and specifies that S equals a grade of C or better, credit may be applied wherever appropriate in the UMUC curriculum. Courses that are vocational or technical may be used only as electives up to a maximum of 21 credits.

Servicemembers Opportunity College

UMUC is a member of the Servicemembers Opportunity Colleges (SOC) Consortium and the SOC Degree Network System. The Servicemembers Opportunity Colleges, established in 1972, constitute a consortium of national higher education associations and more than 1,700 institutional members. SOC Consortium institutional members subscribe to principles and criteria to ensure that quality academic programs are available to military students, their family members, civilian employees of the Department of Defense and Coast Guard, and veterans.

The SOC Degree Network System consists of a subset of SOC Consortium member institutions selected by the military services to deliver specific associate's and bachelor's degree programs to servicemembers and their families. Institutional members of the SOC Degree Network System agree to special requirements and obligations that provide military students, their spouses, and their college-age children with opportunities to complete college degrees without suffering loss of academic credit because of changes of duty station.

SOC operates the two- and four-year Degree Network System for the Army (SOCAD), Navy (SOCNAV), Marine Corps (SOCMAR), and Coast Guard (SOCCOAST). Information and the SOC Degree Network System-2 and -4 Handbooks are available at the SOC website at *www.soc.aascu.org* and on the SOCAD, SOCNAV, SOCMAR, and SOCCOAST home pages.

Technical and Professional Credit

Vocational and Technical Credit

Vocational and technical college-level credit from approved organizations, when applicable, may be accepted as elective credit only.

This credit may be applied toward a degree at UMUC, up to the following limits:

- Associate's degree: A maximum of 12 credits.
- Bachelor's degree: A maximum of 21 credits of coherently related work.

Noncollegiate Courses

UMUC will accept for credit professional (not technical) noncollegiate courses applicable to the student's curriculum that have been evaluated by either (1) ACE (if the courses are listed in the *National Guide to Educational Credit for Training Programs)* or (2) the University of the State of New York National College Credit Recommendation Service (formerly PONSI).

Credit by Examination

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

Examinations may include the Advanced Placement examinations administered by the College Board, the College-Level Examination Program (CLEP), DSST examinations, Excelsior College Examinations, and the International Baccalaureate exam, approved industry certification examinations (listed online at

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www.umuc.edu/creditbyexam), and other approved examinations. UMUC also accepts credit for professional examinations listed in the *ACE Guide to Educational Credit by Examination.* As many as 30 credits by examination awarded by other approved institutions may be accepted for courses that appear on an official transcript with a grade of C (2.0) or better. Students may not receive credit for introductory courses in their native language. Students who have questions about credit by examination are encouraged to consult an advisor.

Advanced Placement

Advanced placement and college credit may be granted to students on the basis of scores on a College Board Advanced Placement (AP) examination. These examinations are normally administered to eligible high school seniors during the May preceding matriculation in college.

A student intending to transfer AP credit that was awarded at another college or similar institution must have a transcript of those scores sent directly to UMUC from the College Board.

When those scores have been received, an advisor will determine whether they meet the standards established at UMUC for granting AP credit and how much credit may be awarded.

Credit earned by advanced placement may be used to fulfill major, minor, or elective requirements.

College-Level Examination Program

Up to 30 credits may be awarded for general examinations in the College-Level Examination Program (CLEP). The scores must meet UMUC standards. UMUC may award 6 credits each for the examinations in English, mathematics, natural science, social sciences and history, and humanities.

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

DSST Examinations

Credit may be awarded for successfully completing certain DSST Tests (formerly known as DANTES Subject Standardized Tests). Advisors have information on which tests are acceptable.

Excelsior College Examinations

Students may earn credit for successfully completing subject tests offered by Excelsior College. Tests are available in various areas of the arts and sciences, as well as in business. Scores must meet UMUC standards. Advisors can furnish details.

Industry Certification Examinations

Some industry certification examinations, such as those for Microsoft Certification, may be eligible for credit. Advisors have information on acceptable examinations and requirements.

International Baccalaureate Examinations

UMUC accepts credit for the International Baccalaureate exam. To receive credit, students must complete the exams before they graduate from high school. Transcripts must be sent directly to UMUC from the examining body and scores must meet UMUC standards. Advisors can furnish details.

UMUC provides services and resources to help students all over the world complete their educational programs—through automated systems and resources available online or by telephone, by e-mail and telephone communication, and in person at sites throughout the Maryland area, as well as at many military sites worldwide (listed at *www.umuc.edu/locate)*. A number of offices are responsible for the delivery of these services, including Career Services, Student Financial Services, Information Technology, Enrollment Management, the UMUC Library, and the Office of the Registrar.

Among these, the offices of Enrollment Management and the Office of the Registrar respond to most of the student's academic needs throughout his or her college career, providing general information; admission assistance; academic advising; registration, graduation, and transcript services; veterans benefits assistance; and services for disabled students.

In the Maryland area, services are available at the following locations:

Aberdeen Proving Ground

Phone 410-272-8269

Anacostia-Bolling (Joint Base Anacostia-Bolling)

Phone 202-563-3611

Andrews (Joint Base Andrews Naval Air Facility Washington)

Phone 301-981-3123

Arundel Mills

Phone 410-777-1882

Bethesda (Walter Reed National Military Medical Center)

Phone 301-654-1377

Dorsey Station

Phone 443-459-3500

Eastern Shore Higher Education Center

Phone 410-822-5400, ext. 5761

Fort Belvoir

Phone 703-781-0059

Fort Detrick

Phone 301-738-6090

Fort Meade

Phone 410-551-0431 or 301-621-9882

Largo (UMUC Academic Center)

ugadvising@umuc.edu

Phone 800-888-UMUC

Laurel College Center

Phone 443-518-4162

Little Creek (Joint Expeditionary Base Little Creek-Fort Story)

Phone 757-646-1530

Myer-Henderson Hall (Joint Base Myer-Henderson Hall)

Phone 703-527-4952 (Fort Myer)
        703-232-9752 (Henderson Hall)

Patuxent River Naval Air Station

Phone 301-737-3228

Quantico

Phone 703-630-1543 (Marine Corps Base);
        703-441-4401 (UMUC at Quantico)

Shady Grove

Phone 301-738-6090

Southern Maryland Higher Education Center

Phone 301-737-2500, ext. 215

Waldorf Center for Higher Education

Phone 301-632-2900

SERVICES AND RESOURCES

UMUC phone representatives are available all day, every day, at 800-888-UMUC to provide answers to general questions and to help callers navigate UMUC's website *(www.umuc.edu)*. Representatives can also make sure that callers are on the UMUC mailing list to receive upcoming class schedules, open house invitations, and other important announcements.

ADMISSION ASSISTANCE

New student advisors serve individuals who are inquiring about becoming UMUC students at some future time, are admitted but have not yet registered, have not attended UMUC for two or more years and need to be readmitted (at no charge), or attended UMUC overseas. They can help prospective students apply for admission, identify financial aid opportunities, plan their curriculum, and register for their first session.

New student advisors can also help qualified senior citizens apply for Golden Identification benefits. More information is on p. 210.

Students may contact a new student advisor by phone at 800-888-UMUC or by e-mail at *enroll@umuc.edu.* More detailed information on admission is available on p. 208.

AUTOMATED SERVICES

A number of automated services are available online to current students.

Through MyUMUC (*https://my.umuc.edu)*, students have access to many of their personal UMUC records. The system enables them to register and pay for courses, change personal information (such as home address or phone numbers), view and print reports (such as their class schedule, grade report, statement of account, unofficial transcript, and academic advisement report), find out the name of their assigned academic advisor, check on the status of their financial aid application, and register for final examinations for online courses.

To access services, students must enter their identification number and personal password.

ACADEMIC ADVISING

Academic advisors provide enrolled students the information needed to plan an academic program. This assistance can include a review of potential transfer credit, help with clarification of education and career goals, and aid in selecting appropriate courses. Advising services are available at times and places convenient to students. Students who are close to UMUC's Academic Center at Largo, Maryland, or one of the UMUC sites in the Maryland region have the option to schedule an appointment to discuss their needs with an advisor in person by calling between 8:30 a.m. and 5 p.m. eastern time, Monday through Friday. Many students, however, choose to communicate with their advisor by phone, fax, or e-mail.

Students can access their advisor's contact information through MyUMUC.

Initial Estimate of Transfer Credit

Prospective or newly admitted students can have a review of their potential transfer credit done by a new student advisor. This review is an estimate of the academic credit UMUC might accept toward a particular degree and of the requirements that would remain to be fulfilled. (A description of sources of credit begins on p. 213 and may be found online at *www.umuc.edu/ ugtransfercredit.)* This review is not binding on either the student or UMUC and is subject to change.

Review of International Records

Students who are seeking a review of potential transfer credit from international postsecondary educational institutions need to

- Be admitted and be seeking an undergraduate degree at UMUC.
- Mail their official international transcripts to the international credit evaluation services selected by UMUC. (Forms are available online at *www.umuc.edu/internationalcredit.)*
- Pay fees associated with the international evaluation.
- Have all official transcripts from any U.S. institution previously attended sent to UMUC.

Academic Advisement Report

To access information about degree progress, students need to submit official transcripts from all colleges and universities previously attended, including other institutions of the University System of Maryland, whether or not transfer credit is requested or granted. UMUC may deny transfer credit from any institution not listed on the application for admission. Sources of

transfer credit not listed at the time of admission or approved by an advisor after admission cannot be applied toward the UMUC degree.

An academic advisement report

- Includes all transfer credits applicable to the degree program.
- Lists all courses completed at UMUC.
- Incorporates other types of academic credit.
- Remains in effect only while the student remains continuously enrolled.

In the academic advisement report, a student's most recent courses are applied to requirements first. Courses that could apply to multiple requirements are assigned to the first relevant category in the following order: general education requirements, then requirements for the selected academic major and minor, and finally 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.

Students are responsible for submitting all pertinent academic documents (such as academic transcripts, confirmation of credit conferred by examination, or records of credit from military service schools) during their first session at UMUC. To be considered official, documents must be sent directly from the issuer to the following address:

> File Management
> University of Maryland University College
> 3501 University Boulevard East
> Adelphi, MD 20783-8070

ACCESSIBILITY SERVICES

Reasonable accommodations are available for students who have disabilities and are enrolled in any program offered at UMUC.

Requests for accommodations should be made as early as possible to allow sufficient time to review requests and documentation and make proper arrangements. Such requests must be made every semester.

Students with disabilities who wish to receive accommodations must officially register with Accessibility Services. To do so, students must first submit documentation of their disability. Depending on the disability, documentation may include secondary school records; medical, psychiatric, or psychological reports and diagnoses; or a psychoeducational evaluation. The documentation must provide clear and specific evidence of a disability and recommended accommodations from a qualified licensed professional.

Once documentation is received, Accessibility Services will notify the student of the status of his or her file and schedule an intake appointment, which may be held by phone, e-mail, or in person. During the appointments, an intake form is completed and services and procedures are discussed.

Note: All UMUC students are required to comply with university policies and procedures and meet the academic requirements of all undergraduate certificate and degree programs. Students with disabilities should review the requirements listed in this catalog (beginning on p. 7 for bachelor's degree programs, p. 82 for certificate programs). Students should not apply to a UMUC certificate or degree program with the expectation that any academic requirement will be waived or that substitutions will be allowed.

For more information, students should visit *www.umuc.edu/accessibility.* Accessibility Services may be contacted by phone at 800-888-UMUC, ext. 2-2287, or 240-684-2277 (TTY) or by e-mail at *accessibilityservices@umuc.edu.*

FINANCIAL AID

UMUC's Financial Aid Office administers a variety of financial assistance programs—including grants, scholarships, federal work-study, and loans—to help students meet the costs of their educational goals. Aid is available for students who demonstrate financial need, academic merit, or both.

Regardless of income level, all students are encouraged to apply for assistance; many financing alternatives are available.

General Eligibility Requirements

An eligible applicant for UMUC assistance must

- Be admitted to UMUC as a degree-seeking or eligible certificate-seeking student.
- Be a U.S. citizen or an eligible noncitizen.
- Be enrolled for 6 or more credits for most federal and institutional aid programs. Federal loan programs require enrollment of at least half-time. Audited courses, some repeated courses, credit by examination, and Portfolio credits cannot be counted.
- Demonstrate satisfactory academic progress toward a degree or certificate according to UMUC policy.
- Have a high school diploma or GED.
- Possess a valid Social Security number.
- Register with Selective Service, if required to do so.

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- Not be in default on any federal student loans, have borrowed in excess of loan limits, or owe a refund on any grant under Title IV federal student aid programs.
- Not be ineligible based on a drug conviction.

Financial Aid Programs

Most aid programs are available to both full- and part-time students. Amounts and eligibility for financial aid vary from year to year. Following is a brief description of programs available for the upcoming award year.

Grants and Scholarships

Gift assistance, for which no repayment is required, is offered by the federal government, the state of Maryland, UMUC, and private donors. The UMUC Financial Aid Office administers several programs: Federal Pell Grants, Federal Supplemental Educational Opportunity Grants (SEOG), UMUC scholarships and grants, and Maryland state scholarships and grants.

The **Federal Pell Grant** is a grant program for high-need, first-time undergraduates. Students are eligible to receive up to $2,823 per semester. Awards vary by need level and enrollment status.

The **Federal Supplemental Educational Opportunity Grant (SEOG)** offers need-based awards for high-need, first-time undergraduates. The amount and number of awards vary depending on the availability of funds allocated by the U.S. Department of Education. Typical awards will range from $300 to $700 per semester.

The **UMUC President's Grant** offers grants to students who demonstrate financial need. Typical awards will range from $100 to $500 per semester, based on need.

UMUC scholarship programs, which include the UMUC President's Scholarship, offer a number of institutional scholarships as well as scholarships from corporate donors and foundations. Requirements vary according to the individual scholarship program. Students who meet eligibility standards are provided an application for a UMUC scholarship automatically. Typical awards for most programs range from $200 to $1,500 per semester. Employees of UMUC and their dependents, as well as persons who receive remission of fees from other institutions, are not eligible to receive UMUC scholarships or grants. Scholarships are awarded for the academic year on a first-come, first-served basis, so it is essential to submit a scholarship application as early as possible. More information is available online at *www.umuc.edu/scholarships.*

Maryland state grant and scholarships provide financial assistance to Maryland residents based on *demonstrated* financial need. For more information, students should contact the Maryland Office of Student Financial Assistance at 410-767-3301 or 800-974-0203 or visit *www.mhec.state.md.us.* The priority filing deadline for all state aid programs is March 1.

Maryland Part-Time Grants offer assistance to Maryland residents enrolled for at least 3 but fewer than 12 credits per semester. Awards are based on financial need. Typical awards are $250 to $1,000 per semester. Funds for these grants are allocated to UMUC on an annual basis.

Many UMUC students receive **private scholarships** offered by corporations, associations, foundations, and other organizations that offer awards on a competitive basis to students who meet specific criteria. Scholarship links and search tools are available through the Web at *www.umuc.edu/scholarships.*

Loans

Loan programs are available to students enrolled for at least 6 credits per semester. Students who take loans to pay for college expenses must repay the principal and interest in accordance with the terms of the promissory note.

The **Federal Perkins Loan** program offers need-based, low-interest federal loans. Award amounts typically range between $500 and $2,000 per semester. The current interest rate is 5 percent. Repayment is made to UMUC and begins nine months after the borrower leaves school or attendance drops below half time.

The **William D. Ford Federal Direct Loan** program offers low-interest federal loans to students. Loan amounts vary based on grade level and dependency status. Repayment begins six months after the student leaves school or attendance drops below half time. For annual award amounts and general repayment terms, students should visit *www.umuc.edu/financialaid* and click on types of financial aid available.

The **Federal Direct PLUS Loan** program enables parents without adverse credit histories to borrow for a dependent student enrolled for at least 6 credits per semester. Parents are eligible to borrow up to the cost of education less other financial aid received by the student. Repayment begins approximately 60 days after disbursement.

Private student loan programs are also an option for UMUC students. Students whose financial aid awards do not meet their financial need may be able to borrow up to their cost of attendance through private student loan programs offered by various banks and other lenders. These education loans are not federal loans; students borrow directly from and make payments to the lender. Students who are interested in a private student loan should contact the bank of their choice or visit UMUC's Web page on private student loans at *www.umuc.edu/financialaid.*

Employment

UMUC recognizes the importance of flexible, part-time employment for students who are in transition or who have financial need.

The **Federal Work-Study** program is a need-based program that provides jobs to assist students in meeting college costs. The amount of award varies according to financial need and availability of funds. Funds are paid biweekly, based on hours worked. Students must apply and be hired for employment at UMUC or in a community-service setting.

UMUC Financial Aid Standards for Satisfactory Academic Progress

Federal regulations require students receiving financial aid to maintain satisfactory academic progress toward their degree or certificate. Students who fail to meet the minimum requirements are not eligible to receive financial aid. Students may review the complete Satisfactory Academic Progress policy for financial aid students, including details of the appeal process, at *www.umuc. edu/undergradsap.*

The Financial Aid Application Process

Students must complete the Free Application for Federal Student Aid (FAFSA) to be considered for any type of financial aid at UMUC. The FAFSA must also be completed for students to be considered for need-based Maryland state scholarships. The FAFSA may be completed online at *www.fafsa.gov.*

To be given high priority for their financial aid application and a determination of eligibility early enough for funds to be reserved by registration, students should complete their FAFSA by the priority filing deadlines listed below.

Students meeting these dates will have the opportunity to be considered for the various grant and scholarship programs with limited funds. Those who do not meet these deadlines may not receive their financial aid in time for registration.

Students who apply late may still receive aid, depending on their eligibility and the availability of funds. Eligibility for both loans and grants can be authorized even after the semester has begun.

Program or Period Being Applied for	Priority Deadline for Filing Financial Aid Forms
Maryland State Scholarships	March 1
Full Academic Year or Fall Semester Only	June 1
Spring Semester Only	November 1
Summer Semester	April 1

Federal Return of Funds Policy

Federal student financial aid is awarded under the assumption that the student will be enrolled for a specified period of time, such as a semester. When a student receives these funds but does not enrolled as expected, the Financial Aid Office is required to determine whether the student has been enrolled long enough to keep all of the financial aid paid to him or her.

Therefore, UMUC's Financial Aid Office must perform a return of Title IV funds calculation any time a student stops his or her enrollment (i.e., withdraws, drops, or stops participating in classes and receives an FN grade) before the end of the semester and does not certify his or her intent to return in another session before the end of the semester.

For further information, students should visit *www.umuc.edu/ enrollmentchanges.*

For Further Information

All financial aid information and forms are also available at *www.umuc.edu/financialaid* on the UMUC website. Students with additional questions should visit Help@UMUC at *umuc. edu/help* to e-mail, chat, or review an extensive list of frequently asked questions. Students may also contact the Financial Aid Office by phone at 800-888-UMUC.

Veterans Benefits Programs

Students may apply for the following educational assistance programs administered by the U.S. Department of Veterans Affairs:

- 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 106)
- Montgomery GI Bill–Reserve Educational Assistance Program (Chapter 1607)

SERVICES AND RESOURCES

Detailed information on all assistance programs is available on the UMUC website at *www.umuc.edu/vabenefits* or on the Department of Veterans Affairs website at *www.gibill.va.gov.*

Application Procedures

Students who are eligible for educational benefits from the U.S. Department of Veterans Affairs should review the online information and application procedures (at *www.umuc.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 U.S. Department of Veterans Affairs. All students must also complete a UMUC request for certification form each session they wish to receive benefits. The U.S. Department of Veterans Affairs processes claims and issues payment six to eight weeks after receiving completed paperwork.

Amounts and Methods of Payment

The amount of money a student may receive from the U.S. Department of Veterans Affairs depends on the educational assistance program for which the student is eligible, the number of credits for which the student is registered, the length of the session, and (for certain programs) the number of dependents the student has. The current monthly payment for each educational assistance program is available online at *www.gibill.va.gov.*

Evaluation of Prior Training

When a student files a claim for educational benefits, the U.S. Department of Veterans Affairs requires previous training to be evaluated so that the student receives correct transfer credit. (Information about types of training that qualify begins on p. 213; these include military training and service schools, postsecondary education, certain correspondence courses, and credit by examination.) Each student must have an academic advisement report completed during the first session. Students who do not comply may find future benefits delayed. After their first registration, eligible students are provided with information on the necessary procedure.

Students' Responsibilities

Students receiving benefits are expected to follow all regulations and procedures of the U.S. Department of Veterans Affairs while attending UMUC.

At UMUC, all regulations of the U.S. Department of Veterans Affairs are enforced. Students should be aware of the following requirements and consequences:

- Students are expected to make satisfactory progress toward a degree or certificate; everyone must comply with the academic standards of UMUC.
- Students 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 a student's degree or certificate program.
- Payment of benefits will be disallowed for MATH 009 and 012, which earn institutional credit only and may not be applied to degree requirements, taken in an online format.
- Payment of tuition and fees is required at time of registration, unless the student is applying for Chapter 31, Vocational Rehabilitation, or Chapter 33, Post-9/11 benefits.
- Students are responsible for debts caused by overpayment of benefits resulting from reductions of course load.

Tutorial Assistance

Veterans, active-duty military personnel, and reservists receiving funding assistance from the U.S. Department of Veterans Affairs may qualify for tutorial assistance. Students enrolled at least half time may qualify. Payments are allowed when students demonstrate deficiency in courses that are required for their degree programs.

Work-Study Allowance

Students who are registered at least three-quarters time (9 credits) and who need money to attend school may participate in work-study. Recipients of benefits under the provisions of Chapters 30, 31, 32, 33, 35, and 106 may be eligible. Students 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 the student's advisor or at *www.umuc.edu/vabenefits* on the UMUC website.

Application Deadlines

Students who expect to complete the requirements for a degree are responsible for making sure they have a completed academic advisement report (details on pp. 220–21), filed an application for graduation (available online through MyUMUC at *https:// my.umuc.edu)* with Graduation Certification, and paid the appropriate fee (currently $50). This may be done at the time of registration for the final term or up to the following dates:

December (fall term) graduation	October 1
May (spring term) graduation	February 15
August (summer term) graduation	June 15

Students whose applications for a diploma are received after the deadlines will be considered for receiving degrees at the next graduation.

Students pursuing certificates must apply for certificates by the same deadlines. The application form is available online at *https://my.umuc.edu.*

Application Process

Once you have applied for graduation, the Degree Audit Team in Undergraduate Advising reviews your academic requirements and determines whether you are cleared for graduation. Students who do not complete degree requirements in the term or session in which they first applied for graduation must complete a new application for diploma and pay the fee for the term or session in which they will graduate.

Graduation Certification in the Registrar's Office then certifies degree completion, awards the degrees or certificates, and mails diplomas. Graduation Certification also processes letters of completion and embassy letters.

Commencement

Commencement is held annually in May in Adelphi, Maryland. Students who are graduating in May or who graduated in August or December of the previous year are invited to participate in the commencement ceremony. To be eligible, students must have applied for graduation. More information on commencement is posted on the UMUC website in February or March.

Official academic records are maintained by the Office of the Registrar at UMUC. Official transcripts show coursework taken through UMUC. For students who have received an official evaluation and have regular status, transfer credit from other institutions (including others in the University System of Maryland) is listed as well. Students' records are considered confidential. Therefore, UMUC releases transcripts only upon receiving a signed request from the student and payment of the appropriate fee. (For students who submit requests online, the student and personal identification numbers are considered an official signature.)

Procedures and forms for requesting transcripts are available online at *www.umuc.edu/transcripts.* A fee is charged for each UMUC transcript that is issued; an additional fee is charged for rush processing. Transcripts should be requested at least two weeks before they will actually be needed. No transcripts will be released until all financial obligations to the university have been satisfied.

Enrollment Verification

UMUC participates in the National Student Clearinghouse which, in turn, supplies verification of enrollment to lending agencies. UMUC reports enrollment data on students to the clearinghouse two times each month. Enrollment data is 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. UMUC also reports degree information, including graduation date, for students who have completed an academic program.

Current students may request enrollment verification through MyUMUC for free. Students who are no longer enrolled at UMUC may request a transcript of their academic record to verify past enrollment.

All enrollment verifications requested via MyUMUC are mailed out next business day.

Loan Deferment Form Certification

UMUC does not grant or deny deferment requests; any defer-ments are at the sole discretion of the lender. UMUC processes deferment forms, certifying the student's official dates of enroll-ment. Students who are not enrolled in the current term (fall,

spring, or summer) are reported as having withdrawn, regardless of whether or not they plan to enroll or have already enrolled in a future term.

Students with William D. Ford Federal Direct Loans who wish to apply for a deferment must complete the In-School Deferment Request (available at *www.umuc.edu/finaidforms*) and submit it to the Registrar's Office by fax at 240-684-2005 or 240-684-2006 for certification.

Students should be aware both of their lender's deadlines for receiving deferment requests and UMUC's reporting schedule to avoid having deferment forms processed and forwarded to the lenders before enrollment data has been reported.

Degree Verification

UMUC has authorized the National Student Clearinghouse to provide degree verification. Employers and background screening firms must contact the clearinghouse directly for this information, for which a fee is charged. Information on this service may be found at *www.studentclearinghouse.org.*

STUDENT ADVISORY COUNCIL

The Student Advisory Council provides an avenue for students to provide feedback about UMUC. The council consists of 12 members, elected by their fellow students, who act in an advisory capacity to the university leadership. The council does not have the authority to act on behalf of individual students but instead provides recommendations for the improvement of UMUC for the benefit of all.

Students who would like to see certain issues addressed or who have questions should contact their council representative by e-mail at *stac@umuc.edu.*

More information on shared governance is available online at *www.umuc.edu/governance.*

OTHER RESOURCES

Bookstores

Students can order required textbooks and software for all courses from MBS Direct online through the UMUC Virtual Bookstore *(www.umuc.edu/bookstore)* or by mail. MBS guarantees availability of new and used inventory, discounts for online sales, no sales tax, and an easy return and buyback program. Orders are shipped via UPS within 24 hours of receipt, Monday through Friday. Overnight and two-day delivery is available for an additional fee. Payment by personal check, MasterCard, Visa, American Express, and Discover is accepted. Some employer contracts may be accepted.

Career Services

Career Services provides personalized assistance with clarifying skills, interests, and work-related values; making career- or life-related decisions; researching career options; planning for graduate school; and searching for employment. Through the Career Services Web page at *www.umuc.edu/careerservices,* students can access a variety of career and job search information and materials. Career Services offers job fairs, employability skills workshops such as résumé writing, tutorials, and access to CareerQuest, UMUC's online job and internship database.

Services are available by telephone, online via e-mail or Skype, or in person by appointment or on a walk-in basis. More information can be found on the Career Services Web page.

Computer Labs and Services

Computer labs are available at many UMUC sites (including Dorsey Station, Largo, Shady Grove, and Waldorf). These labs are available primarily for the use of students completing coursework but are also open to faculty members, staff, and alumni on a first-come, first-served basis on presentation of a valid UMUC ID. Students must bring media to save data or documents. Acceptable media include flash drives or thumb drives.

Lab assistants are available during scheduled hours to help users with resident software programs but cannot provide tutoring.

Students may also access host computers at UMUC via the Internet using Telnet. Two host systems are accessible: Nova and Polaris. Students must have an account for the particular system they wish to use. For most students taking courses in computing, accounts are set up automatically as part of the coursework and are valid for the duration of the class.

Students who are considering enrolling in online courses should review the technical requirements at *www.umuc.edu/techreq* for the most current detailed information.

Technical support for students taking online courses is available 24 hours a day, seven days a week, at *www.umuc.edu/help* or 800-807-4862.

Drug and Alcohol Awareness

As required by federal law, UMUC provides referral services for students with concerns about the use or abuse of alcohol and drugs. Students may discuss referrals with their advisor.

The UMUC Library

The UMUC 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 office also develops and manages extensive online library resources and user-centered services for UMUC students, faculty, and staff worldwide.

Library Resources

The UMUC 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). Students 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 UMUC Library home page at *www.umuc.edu/library* or through the learning management system. UMUC Library OneSearch allows users to search for scholarly articles, books, and/or other research resources via a single search engine in most of the databases to which the UMUC Library subscribes, either directly or as additional resources. The UMUC 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 (where applicable) other Web 2.0 technologies.

Currently enrolled students in the continental United States also have borrowing privileges at the 16 University System of Maryland and affiliated institutions (USMAI) libraries. The library collections can be searched and books can be requested through the USMAI online catalog, available via the UMUC Library home page. All UMUC 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.

Library Instruction and Research Assistance

To help students gain the in-depth research skills needed to locate, evaluate, and use the rich research resources available to them, the UMUC Library offers library instruction, both in person and within the learning management system. This instruction serves to complement and reinforce skills and information provided in LIBS 150 Introduction to Research. Faculty members may contact the UMUC Library to request a library instruction session.

Reference and research assistance is available daily (except holidays), during regularly scheduled hours, through the UMUC Library Web page under Ask a Librarian. For a complete list of library services, students should visit *www.umuc.edu/library* or call the UMUC Library at 240-684-2020 or 800-888-UMUC, ext. 2-2020, during regularly scheduled office hours.

Tutoring, Mentoring, and Academic Clubs

A variety of online and on-site services are available to students who are interested in academic help and support beyond the classroom. Tutors are available in selected classes. Alumni and experienced students are available to work with students online during their studies at UMUC through the Allies Mentoring Program. Mentors can offer guidance on general study strategies, time management, and other topics that are important to academic success. Academic clubs also offer students with similar interests the opportunity to network, ask questions of faculty, and discuss related topics in an online forum. All UMUC students are eligible to join any of the academic clubs. Students should visit *www.umuc.edu/studentsupport* to find out more about tutoring, the Allies Mentoring Program, and academic clubs.

Writing Resources and Tutoring

UMUC's online Effective Writing Center *(www.umuc.edu/ewc)* is available to all UMUC students 24 hours a day. The center's experienced, trained advisors help students develop key writing skills by providing individual online tutoring, self-study modules, and other writing resources.

Student can submit assignments for review and access a wide variety of information via the WRIT 001 classroom and schedule live online advising sessions by sending an e-mail to *writingcenter@umuc.edu*. In addition to providing writing advice, the Effective Writing Center hosts an online interactive tutorial on "How to Avoid Plagiarism" and the "Online Guide to Writing and Research"—both of which are required in many courses. Various other multimedia resources are also available.

By special agreement with the Effective Writing Center, students may also receive writing tutoring at the University of Maryland,

College Park (UMCP) Writing Center, located in room 1205 of the Tawes Fine Arts Building. Students should go to the UMCP Writing Center website at *www.english.umd.edu/academics/ writingcenter* to schedule an appointment.

Alumni Association

The UMUC Alumni Association, founded in 1990, fosters and perpetuates lifelong relationships between alumni and the university. Its mission is to support, enhance, and promote UMUC and its community of students, faculty, staff, and alumni worldwide.

Membership in the Alumni Association is free for UMUC graduates. The association invites graduates to stay connected through volunteer service, social events, career networking, and philanthropy. Benefit programs and resources include career services, affinity partner discounts, and special alumni events.

Membership in the UMUC Alumni Association offers an exceptional opportunity to expand personal and professional networks. UMUC currently has more than 160,000 graduates in 47 states and 24 countries. UMUC alumni work in nearly all major international and Fortune 500 organizations, federal agencies, branches of the military, and private industry.

More information on the Alumni Association and how to activate free membership is available at *www.umucalumni.org*. The Alumni Association can also be found on Facebook, Instagram, LinkedIn, and Twitter.

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Marcus Wright, *Assistant Director, Community College Alliances*

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Susano "Ted" Loya Jr., *Director, Enrollment Management*
William Stevens, *Senior Associate Registrar*

Faculty

The Undergraduate School has a large and distinguished faculty. UMUC 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 UMUC's mission, UMUC 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 undergraduate faculty, with their academic credentials, is available online at *www.umuc.edu/facultylist.*

UMUC STATESIDE

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UMUC EUROPE

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studentservices-europe@umuc.edu

Web Site

www.europe.umuc.edu

Catalogs

Requests for undergraduate and graduate catalogs for UMUC Europe should be sent to University of Maryland University College, Unit 29216, APO AE 09004. Catalogs may also be obtained from Overseas Programs, University of Maryland University College, 3501 University Boulevard East, Adelphi, MD 20783-8067.

CONTACT INFORMATION

Asia Headquarters

Address

- From overseas U.S. military installations or from the United States

    University of Maryland University College
    Unit 5060, Box 0100
    APO AP 96328-0100

- International (civilian from outside the United States)

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www.asia.umuc.edu

Japan Office

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- From overseas U.S. military installations or from the United States

    University of Maryland University College
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    Unit 5060, Box 0100
    APO AP 96328-0100

- International (civilian from outside the United States)

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    Fussa, Fussa-shi
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- From overseas U.S. military installations or from the United States

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    Yongsan Education Center
    Unit 15556
    APO AP 96205-5556

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    University of Maryland University College
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Okinawa Office

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- From overseas U.S. military installations or from the United States

    University of Maryland University College
    18th FSS/FSDE
    Unit 5134, Box 40
    APO AP 96368-5134

- International (civilian from outside the United States)

    University of Maryland University College
    Education Center
    Kadena Air Base
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  Within Asia

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  Outside Asia

  DSN: 315-366-7132

- Civilian

  1-671-366-7132

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- Military

  Within Asia

  DSN: 366-4785

  Outside Asia

  DSN: 315-366-4785

- Civilian

  1-671-366-4785

E-Mail

guam-asia@umuc.edu

Catalogs

Catalogs may be obtained by writing to UMUC Asia, Unit 5060, Box 0100, APO AP 96328-0100 or to Overseas Programs, University of Maryland University College, 3501 University Boulevard East, Adelphi, MD 20783-8067. The catalog is also available online at *www.asia.umuc.edu.*

POLICIES

The information contained in this catalog reflects the policies of both UMUC and the University System of Maryland (USM). The complete list and text of UMUC's policies can be found at *www.umuc.edu/policies.* USM policies can be found at *www. usmd.edu/regents/bylaws.*

STUDENT CLASSIFICATION FOR ADMISSION AND TUITION PURPOSES

For information on student classification and residency, students should review USM policy VIII-2.70 at *www.usmd.edu/regents/ bylaws/SectionVIII.*

STATEMENT ON TRANSFER OF GENERAL EDUCATION REQUIREMENTS

UMUC conforms with the general education requirements as laid out by COMAR 13B.02.02.16D(2)(b)-(c). Up to 36 general education credits earned at another Maryland public institution will transfer to UMUC as general education credits. UMUC's general education requirements may be found on p. 8 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 UMUC'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. UMUC 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 at *artweb.usmd.edu* on the web. Students should see an advisor for details.

NONDISCRIMINATION

UMUC is committed to ensuring that all individuals have equal access to programs, facilities, admission, and employment without regard to personal characteristics not related to ability, performance, or qualifications as determined by UMUC and/ or University System of Maryland policy or by federal, state, or local authorities, in accordance with UMUC Policy 40.30 Policy and Procedures on Affirmative Action, Equal Opportunity, and Sexual Harassment *(www.umuc.edu/policies/adminpolicies/ admin04030.cfm).* UMUC prohibits discrimination or harassment of any individual due to race, religion, color, creed, gender, gender identity or expression, marital status, age, national origin, ancestry, political affiliation, mental or physical disability, sexual orientation, or veteran status (including Vietnam-era veterans). All inquiries regarding UMUC's Nondiscrimination Statement or compliance with applicable statutes and regulations should

be directed to the assistant vice president of Fair Practices and Compliance, Office of the President, UMUC, 3501 University Boulevard East, Adelphi, MD 20783-8000 (phone 301-985-7930 or e-mail: *FPC@umuc.edu).*

DISCLOSURE OF STUDENT RECORDS

UMUC complies with the Family Educational Rights and Privacy Act ("FERPA"), a federal law which protects the privacy of students' education records. In accordance with FERPA, students have the right to inspect and review their education records; seek an amendment of their education records, where appropriate; limit disclosure to others of personally identifiable information from education records without the student's prior written consent; and file formal complaints alleging a violation of FERPA with the Department of Education. UMUC's policy on Disclosure of Student Records, which contains a list of directory information, is provided at *www.umuc.edu/policies/academicpolicies/ aa21014.cfm.*

UMUC PEER-TO-PEER NOTIFICATION

Unauthorized use of copyrighted materials may bring civil and criminal penalties to the user. UMUC is committed to combating the unauthorized use of copyrighted materials on UMUC's network, and therefore, has established a written plan to achieve this goal. The intent of this plan is to inform UMUC 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 UMUC's network.

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

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* Annotated Code of Maryland, Education Article, §12-101.

court may award up to $150,000 per work infringed. A court can, in its discretion, also assess costs and attorneys' fees. For details, students should 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 *www.copyright.gov*.

UMUC Procedures for Handling Unauthorized Distribution

UMUC implements an active protocol to respond to copyright infringement allegations. In accordance with the Digital Millennium Copyright Act (DMCA), UMUC has designated the following individual to receive and respond to reports of alleged copyright infringement on UMUC's website:

Nancy Williamson
Vice President and General Counsel
University of Maryland University College
3501 University Boulevard East
Adelphi, MD 20783

301-985-7080
legal-affairs@umuc.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, UMUC will act expeditiously to remove or block access to the infringing material.

APPENDICES

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 out-of-state alliance partners is available at *www.umuc.edu/alliances.*

As an online university, UMUC courses and services are available worldwide. Within the United States, individual states may require some form of registration. The following information is designed to meet such state requirements:

Alabama

State approval of a program to offer Alabama licensed nurses opportunities for advanced degrees does not indicate eligibility for approval to practice as an advanced practice nurse in Alabama. Applicants for approval in Alabama are required to meet the Alabama requirements for national certification, graduation from a specific-type program for the advanced practice approval, and completion of the appropriate application. Any program offering a prelicensure track to Alabama students shall meet the requirements of the Alabama regulations for prelicensure programs or the graduates may not be eligible to take the national licensure examination required by the Alabama Board of Nursing to enter the practice. Details are available at *www.abn.alabama.gov.*

Iowa

UMUC is registered by the College Student Aid Commission on behalf of the state of Iowa.

UMUC complies with Iowa refund requirements found at Iowa Code section 261.9(1)(g), which require institutions to offer not less than the following options to a student who is a member, or the spouse of a member if the member has a dependent child, of the Iowa National Guard or reserve forces of the United States and who is ordered to state military service or federal service or duty:

   i.   Withdraw from the student's entire registration and receive a full refund of tuition and mandatory fees.

   ii. Make arrangements with the student's instructors for course grades, or for incompletes that shall be completed by the student at a later date. If such arrangements are made, the student's registration shall remain intact and tuition and mandatory fees shall be assessed for the courses in full.

   iii. Make arrangements with only some of the student's instructors for grades, or for incompletes that shall be completed by the student at a later date. If such arrangements are made, the registration for those courses shall remain intact and tuition and mandatory fees shall be assessed for those courses. Any course for which arrangements cannot be made for grades or incompletes shall be considered dropped and the tuition and mandatory fees for the course refunded.

Qualified students seeking accommodation should fully complete and submit a Request for Exception Form to the Office of the Registrar and make reference to Iowa Code section 261.9(1)(g).

Minnesota

University of Maryland University College is registered as a Private Institution with the Minnesota Office of Higher Education pursuant to sections 136A.61 to 136A.71. Registration is not an endorsement of the institution. Credits earned at the institution may not transfer to all other institutions.

Minnesota students should refer to the Minnesota Baccalaureate Degree Standards for the general education requirements of that state.

Virginia

UMUC is certified by the State Council of Higher Education for Virginia.

The university's largest site in Virginia is

UMUC at Quantico
525 Corporate Dr.
Stafford, VA 22554

The university maintains locations with administrative capability at

Fort Belvoir
Barden Education Center, Building 1017
9625 Belvoir Road
Room 128
Fort Belvoir, VA 22060

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

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NOTES

University of Maryland University College

STUDENT NAME_____ DATE_____

Degree Planning Worksheet 2014–2015

This worksheet is designed to help you plan and track your progress toward your degree. It lists all of the graduation requirements in the recommended sequence. For full course descriptions, please refer to the current undergraduate catalog. For major-specific worksheets, see *www.umuc.edu/worksheets.*

SEQUENCE *Courses are listed in the order in which students should take them.* *Changes in courses and order may affect other elements of the degree plan.*	COURSE TAKEN OR TRANSFERRED	SESSION TAKEN
Recommendations will differ for specific majors. Refer to catalog for alternatives to recommended general education requirements (GenEds). *Courses used for GenEds may not be used in the major or minor.*		
FIRST COURSES (7 credits) Take within first 18 credits. **Take placement exams before registering for writing and math courses.**		
LIBS 150 (1) *Required GenEd course*		
WRTG 101 or WRTG 101S (3) *Required GenEd course*		
MATH 106 or higher (3) *Required GenEd course (check requirements of individual major)*		
INTRODUCTORY COURSES (16 credits) Take within first 30 credits.		
ECON 103 (3) *Or other first behavioral/social science GenEd course*		
BIOL 103 (4) *Or other biological/physical science GenEd course with related lab*		
WRTG 293 (3) *Or other writing GenEd course*		
IFSM 201 or CMST 301 (3) *Required computing GenEd course*		
HUMN 100 (3) *Or other arts/humanities GenEd course*		
FOUNDATION COURSES (21 credits) Take within first 60 credits.		
STAT 200 (3) *or other statistics course—if required for major*		
BEHS 103 (3) *Or other second behavioral/social science GenEd course (discipline must differ from first)*		
◆ First course for major (3) *Check requirements for major*		
NSCI 100 (3) *Or other 3-credit biological/physical science GenEd course*		
HIST 125 (3) *Or other ARTH or HIST course for arts/humanities GenEd in historical perspective (discipline must differ from other arts/humanities GenEd course)*		
CMIS 111 or IFSM 300 (3) *Or other computing GenEd course (check requirements of individual major)*		
COMM 202 (3) *Or other communication, writing, or speech GenEd course*		

◆ *Required courses for major*

STUDENT NAME_____ DATE_____

SEQUENCE	COURSE TAKEN OR TRANSFERRED	SESSION TAKEN
Note total credits for major. At least half must be upper level and at least half taken through UMUC.		
ADDITIONAL REQUIRED COURSES FOR MAJOR AND DEGREE (30–38 credits) Take after introductory/foundation courses.		
WRTG 391, WRTG 393, or WRTG 394 (3) *Upper-level advanced writing GenEd course*		
◆ Major course requirement (3) *See requirements for specific major*		
◆ Major course requirement (3)		
◆ Major course requirement (3)		
◆ Major course requirement (3)		
◆ Major course requirement (3)		
◆ Major course requirement (3)		
◆ Major course requirement (3)		
◆ Major course requirement (3)		
◆ Major course requirement (3)		
◆ Major course requirement (3)		
◆ Major course requirement (3)		
MINOR OR ELECTIVES (15 credits, at least 9 credits upper level for minor) Complete in last 60 credits along with major courses.		
See requirements of individual minor.		
ADDITIONAL ELECTIVES (23–31 credits)		
Choose any courses to meet 120 credits for degree. Note minimum requirements for upper-level coursework.		
Complete in last 60 credits along with major and minor courses.		
TOTAL: 120 CREDITS		

CHECKLIST FOR FULFILLMENT OF DEGREE REQUIREMENTS See catalog for overview of all requirements.

❏ 30 credits at UMUC, including at least half of the major and minor and 15 credits upper level.

❏ 45 credits upper level, including half the credit for the major and for the minor.

❏ All required courses and minimum number of credits for major and minor.

❏ Prerequisites for major and minor courses, if needed.

❏ All general education requirements.

❏ Grade of C or better in all courses for the major and minor.

❏ Overall GPA of at least 2.0.

❏ At least half the credit for the major earned through graded coursework.

❏ Total 120 credits.

◆ *Required courses for major*

Visit UMUC on the web at
www.umuc.edu.

To speak with an advisor,
call **800-888-UMUC (8682)** or send an e-mail
to *ugadvising@umuc.edu.*

TAKE THE NEXT STEPS TO BUILDING YOUR FUTURE

Read about our students' aha moments and learn how you can achieve your own with UMUC.

UMUC.edu/moments

ABOUT UMUC

University of Maryland University College (UMUC) specializes in high-quality academic programs that are convenient for busy professionals. Our programs are specifically tailored to fit into the busy lives of those who wish to pursue a respected degree that can advance them personally and grow their careers.

UMUC has earned a worldwide reputation for excellence as a comprehensive virtual university and, through a combination of classroom and distance-learning formats, provides educational opportunities to more than 90,000 students. The university is proud to offer highly acclaimed faculty and world-class student services to educate students online, throughout Maryland, across the United States, and in more than 20 countries and territories around the world.

UMUC serves its students through undergraduate and graduate programs, noncredit leadership development, and customized programs. For more information regarding UMUC and its programs, visit *www.umuc.edu*.

University of Maryland University College

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