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. The leading education provider for the U.S. military, UMUC serves nearly 60,000 servicemembers, veterans, and military family members worldwide. With more than 150 global locations and more than 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 Web site or by phone or e-mail. All over the world, UMUC gives its students what they need to succeed, putting goals within their reach.

This catalog provides the degree requirements and recommended curriculum for students who begin continuous study on or after August 1, 2008. Students should keep their catalog available for easy reference throughout their degree program.
Welcome to UMUC’s Graduate School of Management and Technology. As the university’s yearlong 60th anniversary celebration draws to a close, the 2008–9 academic year promises continued advancement, aimed at enhancing the value and the career-relevant learning that UMUC graduate degree and certificate programs deliver to working adult students like you around the world. We remain committed not only to providing for your education needs, but also to expanding the services and support that can help you avoid obstacles and successfully complete your chosen program.

The reflection of that commitment is right here in your hands. This catalog is an important tool you can use right now and periodically throughout your studies. It’s a map for plotting your educational direction, a compass for checking your progress and making sure you’re still on the right path. And it’s an encyclopedia of facts, figures, and vital information about your UMUC program. By starting your program in this academic year, the academic and administrative requirements outlined in this catalog will govern your program until graduation. So please spend some time getting familiar with this catalog and keep it for future reference.

On behalf of our faculty and staff, thank you for choosing the UMUC Graduate School of Management and Technology. Please accept our best wishes for success in your graduate program and throughout your career.

Sincerely,

Michael S. Frank, PhD
Vice Provost and Dean
Graduate School of Management and Technology
E-mail: graddean@umuc.edu

POLICY STATEMENT

This publication and its provisions do not constitute, and should not be regarded as, a contract between UMUC and any party or parties. At the time of publication, reasonable effort was made to ensure the factual accuracy of the information. However, this publication is not a complete statement of all policies, procedures, rules, regulations, academic requirements, and tuition and fees applicable to UMUC, its students, or its programs. In addition, changes or additions may be made to the policies, procedures, rules, regulations, and academic requirements set out in this publication. UMUC reserves the right to make these changes and additions to the information in this publication without prior notice. When a curriculum or graduation requirement is changed, it is not made retroactive unless the change is to the student’s advantage and can be accommodated within the span of years normally required for graduation.

See additional policies and procedures on inside back cover.
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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 second largest public university in Maryland, serving students throughout the state, the nation, 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 the largest selection of online programs available—in addition to classes at sites throughout Maryland and the metropolitan Washington area and at military sites in Europe and Asia. Student services can also be accessed online and by phone, as well as on-site.

Convenience and flexibility are not the only concern, 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 or community college students.

Excellence

An 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 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 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 WebTycho, UMUC’s proprietary course-delivery system, and MyUMUC, the university’s 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 School of Undergraduate Studies and the Graduate School of Management and Technology. The Graduate School also comprises the National Leadership Institute (which provides noncredit leadership development training), the Institute for Environmental Management, and the Institute for Global Management.

Headquarters for these programs are located in Adelphi, Maryland, and also serve as home to a prestigious art collection and a conference facility, the Inn and Conference Center, operated by Marriott. Most classes and services, however, are provided at nearly 150 sites worldwide, as well as through cutting-edge technology—online via the university Web site, WebTycho, and MyUMUC and by phone via the Interactive Registration and Information System (IRIS).

FOR ASSISTANCE

Assistance is available by e-mail at info@umuc.edu, or by phone at 800-888-UMUC (8682).
About the Graduate School

MISSION STATEMENT

UMUC’s Graduate School of Management and Technology prepares students for effective leadership and citizenship in a global environment characterized by workforce diversity, increasing competition, and technological innovation. Programs are designed to extend educational access to adult students through multiple formats. The Graduate School strives for excellence in the quality of programs offered and innovative delivery formats. The curriculum provides knowledge of the disciplines with emphasis on leadership, communication, technology, globalization, diversity, systems thinking, critical thinking, information literacy, research competency, and ethical practices. The Graduate School challenges students and faculty to continuously demonstrate effective leadership as they apply what they study to their professions and their daily lives. Its goal is to become one of the premiere worldwide graduate institutions of choice among students and faculty.

ACADEMIC PROGRAMS

UMUC’s graduate degrees are designed to provide a career-focused curriculum. Many of the programs offer an opportunity for further specialization within the general field. The Graduate School of Management and Technology currently offers 15 graduate degree programs, including a doctor of management program, more than 30 specializations, and more than 30 certificate programs. Students can also enroll in one of 13 dual degree programs, which enable students to acquire two graduate degrees for substantially fewer credits than would be required if the two degrees were earned separately. Most of these programs are available online, so students can pursue their degrees from anywhere in the world.

Through Executive Programs, the Graduate School also offers the Master of Business Administration degree and a Chief Information Officer certificate program in a format geared to professionals with more than five years of management experience. A complete list of graduate programs can be found on pp. 8–9.

UMUC offers courses both on-site at Maryland area locations and online. For more information, students should call 800-888-UMUC or e-mail gradinfo@umuc.edu.

SPECIAL PROGRAMS

Institute for Environmental Management
The Institute for Environmental Management provides educational services in the field of environmental management to individuals and corporations, and to federal, state, and local governments. The institute contributes to the exchange of knowledge in this field by conducting workshops and short courses. Further information may be obtained by contacting the director of the Institute for Environmental Management at 800-888-UMUC, ext. 7875, or rbeauchamp@umuc.edu.

Institute for Global Management
The Institute for Global Management conducts research and provides educational and training services on topics central to the management of international enterprises. The institute offers customized seminars and consulting services and engages in applied research on topics that prepare managers for the effective conduct of international business. Further information may be obtained by contacting the director of the Institute for Global Management at 800-888-UMUC, ext. 7200, or cmann@umuc.edu.

NATIONAL LEADERSHIP INSTITUTE PROGRAMS

The National Leadership Institute (NLI) offers a wide range of noncredit programs and services designed to help managers, executives, and organizations enhance their overall leadership effectiveness. For more information, students should visit the Web page at www.umuc.edu/nli, call 877-999-7195, or e-mail nli@umuc.edu.

ACADEMIC RELATIONSHIPS

The Graduate School of Management and Technology has established partnerships with a number of academic and government institutions, some of which are listed below.

Military Relationships
UMUC also established special relationships with a number of the military’s institutions of higher education: Air War College; Army Signal Center; Army Management Staff College; Defense Acquisition University; Naval War College; and the National Defense University’s Joint Forces Staff College, Information Resources Management College, and School of National Security Executive Education. More information on these partnerships is available online at www.umuc.edu/military.

Oldenburg University
The Master of Distance Education (MDE) program is offered in partnership with Carl von Ossietzky University of Oldenburg, Germany, a leading German institution with extensive experience in distance education. The participation of Oldenburg University helps to ensure that the program has a broad, global perspective that is critical for distance educators in today’s world.

Oldenburg University contributes a certificate and several courses to the program, as well as a series of books that include important reflective research on the program (including historical analysis of the program development and detailed cost analysis). Oldenburg has held MDE faculty meetings, contributing to the development of a globally distributed faculty for this degree program.
Preparing for Graduate Study

As most students know, more is expected at the graduate level than what is normally required on the undergraduate level. During graduate study, more effort is required on an academic level, and there are usually special requirements that must be completed at the end of the student’s program. UMUC requires students to complete comprehensive exams and a dissertation only at the doctoral level. While many traditional master’s degree programs may culminate with the completion of a thesis, most UMUC programs require an integrative end-of-program capstone course instead.

Students should refer to the catalog of the year in which they began graduate study for the specific requirements related to their program of study.

All graduate students must maintain a cumulative GPA of 3.0 and receive no grade of F to remain in good academic standing. Academic progress is assessed at the end of each session. Other requirements, such as time limits to degree completion, also apply; details are provided on p. 122.

NONPROGRAM COURSES

Because UMUC graduate students often enter graduate study with academic backgrounds in very different fields and return to study after a gap of many years, UMUC offers a number of courses outside the usual required program courses that are designed to help students succeed in their graduate studies. Most of these courses are noncredit and optional; the course in library research skills, however, is required for all students entering graduate study at UMUC. Complete course descriptions are provided on pp. 69–107.

Required Course in Library Research Skills

UCSP 611 Introduction to Graduate Library Research Skills is designed to familiarize students with online library and information resources—material that is critical for 21st-century managers.

This noncredit course is required for all new graduate students and all inactive students who reapply for admission. The grading method is pass/fail. UCSP 611 must be completed within the first 6 credits of graduate study.

Elective Credit Course in Writing

Students who have been out of academia for a period of time or who do not write often in their professions are encouraged to enroll in COMM 600 Academic Writing for Graduate Students in their first session. COMM 600 is specially designed to reinforce and strengthen the writing skills necessary for success in UMUC’s graduate degree programs. Although the course does not apply to any individual program requirements, it does earn 3 credits.

Elective Noncredit Courses

Noncredit courses (designated UCSP) are available in financial accounting, economics, and research methods and generally last five to eight weeks. Although these courses carry no UMUC credit, they appear on the students’ official academic transcript. At the successful conclusion of the course, a grade of P (Pass) is posted. UMUC graduate students must be admitted or have an application on file before registering for noncredit courses.

Current information about fees and scheduling for noncredit courses is available at www.umuc.edu/grad/noncred.html.

COURSE FORMATS

UMUC offers courses online, on-site at a number of Maryland locations, and in a hybrid format that combines on-site and online instruction.

All Graduate School of Management and Technology on-site courses use WebTycho, UMUC’s Web-based course management system, as an enhancement. Faculty members may elect to use some or all of WebTycho’s online features in conjunction with face-to-face interactions in the classroom.

Hybrid classes meet on-site at a UMUC location for about half the class sessions; the remainder of the course material is covered online in the WebTycho classroom. The schedule of on-site sessions is provided by the faculty member at the beginning of the term. Hybrid courses are identified in the most current graduate Schedule of Classes.

Online courses maintain the same academic standards as on-site courses. Course content, texts, requirements, assignments, and class participation are comparable for online and on-site courses; for example, students need to adhere to a course schedule for assignment deadlines and exam times.

Computer and Internet Access

UMUC is committed to ensuring that students acquire the level of technological fluency needed for active participation in contemporary society and 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. This policy applies to students in both classroom-based and online courses.
All UMUC students must therefore ensure that they have some type of Internet access. This access may be through use of a UMUC computer lab, university or public library, or other readily available source if the student does not have home access. However, it should be regularly available and the student must have a current e-mail address.

All students currently enrolled at UMUC are eligible for a university computer account on the UNIX system Polaris. The computer account provides students an e-mail address and access to many text-based services such as Internet newsgroups, mailing lists, and programming languages. This computer account remains active as long as the student is registered for classes at UMUC.

**Taking Online Classes**

Before registering for an online course, students may want to consider the following:

1. Online students need to be prepared to write extensively, because nearly all communication is written. Online students need strong English reading and writing skills.

2. Online students need to be competent in the use of computers and commonly used software programs.

3. Since WebTycho is asynchronous and students are expected to be active participants online, students are encouraged to log in frequently to check what has transpired in their online classroom (in lieu of classroom meetings).

4. Online students need disciplined work habits, effective time management skills, and the ability to work both alone and collaboratively.

**Technical Requirements**

Note: Minimum technical requirements are subject to change. Current information about technical requirements is available online at [www.umuc.edu/grad/online/techreq.shtml](http://www.umuc.edu/grad/online/techreq.shtml). Students are responsible for their own phone line and Internet access costs.

Technical requirements for students taking graduate courses include:

- A PC running Windows 2000 or Windows XP operating system
- A compatible Web browser (Internet Explorer 6.0 or higher; Netscape 7.2 or higher)
- A connection to the Internet (broadband preferred)
- An e-mail account
- A sound card with speakers or headphones and a microphone
- Sun Java VM (can be downloaded for free)
- Virus protection software (updated regularly)
- Control of the desktop to allow software downloads

Some academic programs may have additional technical requirements.

**Mandatory Course Evaluations**

UMUC uses student feedback to make decisions about future courses. The online evaluation is required to ensure complete information from every student. Individual responses are kept confidential. The evaluation notice for online courses will appear on the class screen about 21 days before the end of the session. Students have approximately one week to complete the evaluation before access to the Class Menu is locked. If students do not open the file and either respond to the questions or click on “no response,” they are “locked out” of the Class Menu until they complete the evaluation. After completing the evaluation, access to the classroom resumes.
# Program Overview

## Doctoral Program

**Doctor of Management***

## Master's Degree Programs

**Master of Business Administration**

**Master of Distance Education**
- Distance education policy and management
- Distance education teaching and training
- Distance education technology

**Master of Education in instructional technology**

**Master of International Management**
- International enterprise management
- International financial management
- International marketing management

**Master of Science in accounting and financial management**

**Master of Science in accounting and information technology**

**Master of Science in biotechnology**
- Bioinformatics
- Biosecurity and biodefense
- Biotechnology management

**Master of Science in environmental management**

**Master of Science in financial management and information systems**

**Master of Science in health administration informatics**

**Master of Science in health care administration**

**Master of Science in information technology**
- Database systems technology
- E-business
- Homeland security management
- Informatics
- Information assurance
- Project management
- Software engineering
- Telecommunications management

**Master of Science in management**
- Accounting
- Financial management
- Health care administration
- Homeland security management
- Human resource management
- Information systems and services
- Interdisciplinary studies in management
- Marketing
- Nonprofit and association management
- Procurement and contract management
- Project management
- Public relations

**Master of Science in technology management**
- Distance education technology
- E-business
- Homeland security management
- Information systems and services
- Project management

## Executive Degree Program

**Executive Master of Business Administration***

## Dual Degree Programs

**Master of Business Administration**

**Master of Distance Education**

**Master of International Management**

**Master of Science in biotechnology**

**Master of Science in environmental management**

**Master of Science in financial management and information systems**

**Master of Science in health care administration**

**Master of Science in information technology**

**Master of Science in management**

**Master of Science in technology management**

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* Offered online with mandatory residencies or course meetings at UMUC headquarters in Adelphi, Maryland.

** The Master of Business Administration may also be earned through Executive Programs as the first degree in the dual degree program.
Other Dual Degree Combinations

- Master of Distance Education/Master of Science in management
- Master of Education in instructional technology/Master of Distance Education
- Master of Science in accounting and financial management/Master of Science in accounting and information technology
- Master of Science in accounting and financial management/Master of Science in financial management and information systems

NONDEGREE TEACHER EDUCATION PROGRAMS

- Alternative Teacher Preparation
  - Teacher Education Reading Strand: Reading Courses in Elementary and Secondary Education

CERTIFICATE PROGRAMS

- Accounting
- Accounting and Information Technology
- Bioinformatics
- Biotechnology Management
- Database Systems Technology
- Distance Education, Globalization, and Development
- Distance Education Leadership
- E-Business
- E-Learning Instructional Systems Design*
- Environmental Management
- Financial Management in Organizations
- Foundations of Distance Education
- Foundations of Human Resource Management
- Foundations of Information Technology
- Health Care Administration
- Homeland Security Management
- Informatics
- Information Assurance
- Integrated Direct Marketing
- Integrative Supply Chain Management
- International Marketing
- International Trade
- Leadership and Management
- Library Services in Distance Education
- Nonprofit and Association Financial Management
- Policy and Management in Distance Education
- Procurement and Contract Management
- Project Management

Public Relations
- Software Engineering
- Systems Analysis
- Teaching and Training at a Distance
- Technology in Distance Education
- Telecommunications Management

EXECUTIVE CERTIFICATE PROGRAM

- Chief Information Officer

* A joint program with University of Maryland, Baltimore County.
DOCTORAL DEGREE PROGRAM

DOCTOR OF MANAGEMENT

Program Description
Today’s business leaders require a more sophisticated level of knowledge and analysis to successfully maneuver their organizations through the complexities of a rapidly changing global environment. The Doctor of Management (DM) degree is designed for seasoned managers who want to rise above their peers and hold significant leadership roles in public or private organizations anywhere in the world. The doctoral-level curriculum builds executive competencies and helps experienced professionals acquire the advanced theoretical and practical knowledge and leadership skills needed to identify new opportunities that can add value to their organizations and sustain their long-term competitiveness. The goal of the Doctor of Management program is to provide graduates with the credentials and abilities that will position them as experts in their fields.

Program Objectives
Graduates of this program will be able to
• Function effectively as leaders in an organization.
• Understand management theory and practice.
• Formulate and execute business strategies and operational plans.
• Develop knowledge base and solid understanding of technology acquisition, organizational and behavioral processes, assessment, and global operations.

Program Overview
The Doctor of Management program requires the completion of 48 credits of coursework, including comprehensive examinations and a dissertation. DMGT 600 is prerequisite to the program; this course requirement may be waived for applicants who have already completed a terminal degree (e.g., JD or PhD) or who submit a GMAT score of 650 or higher. Limited residencies are required.

Application Procedures
In addition to a completed application, DM applicants must submit
• An official transcript indicating a master’s degree or higher from a regionally accredited university (students educated abroad should see www.umuc.edu/students/international/gr_admission.shtml for additional requirements)
• Résumé
• Personal statement
• Two professional references
Admission criteria are provided on p. 115.

Career Paths
• Senior manager/chief executive officer
• Management/expertise consultant
• Management analyst

REQUIRED COURSES: DOCTOR OF MANAGEMENT

| Initial Requirements | UCSP 611 | Introduction to Graduate Library Research Skills (0) |
| Core Courses         | DMGT 600 | Foundations of Doctoral Studies (3) |
|                      | DMGT 800 | Foundations of Management Theory and Strategic Thinking (6) |
|                      | DMGT 810 | Leadership, Enterprise Change, and Virtual Management (6) |
|                      | DMGT 890 | Dissertation Theory Paper (4) |
|                      | DMGT 820 | International Finance and Global Operations (6) |
|                      | DMGT 830 | Research Methods (6) |
|                      | DMGT 891 | Dissertation Empirical Paper (4) |
|                      | DMGT 840 | Enterprise Continuity and Information Assurance (6) |
|                      | DMGT 850 | Innovation and Sustainable Development (6) |
|                      | DMGT 892 | Dissertation Futurist Paper (4) |
| Optional Course      | DMGT 860 | Postdoctoral Seminar and Practicum in Teaching (3) |

Course descriptions are found on pp. 69–107.
Program Description

Management responsibilities in today's complex multinational business organizations transcend a single functional specialty and require a broad array of specialized knowledge. The Master of Business Administration (MBA) is designed for midcareer professionals whose careers and management responsibilities transcend a single functional specialty and require a broad array of specialized knowledge and skills. The emphasis of this interdisciplinary, integrated, and applied degree program is on the significant organizational and management processes that take place in the context of large public or private institutions doing business on a global scale. The goal is to prepare students for upper management and executive-level positions by developing key managerial competencies—including critical thinking, systems thinking, team building, decision making, and ethical leadership—that can be applied in any type of business enterprise.

Students with five or more years of management experience may want to consider the Executive Program for the MBA, described on p. 54.

Program Objectives

Graduates of this program will be able to

• Analyze the evolving nature of corporations.
• Practice leadership with change management.
• Measure an organization’s intellectual assets.
• Identify how product development merges with entrepreneurship.
• Foster new approaches to measuring the economic performance of organizations.

Program Overview

The 42-credit MBA program consists of seven 6-credit seminars. AMBA 600 (3 credits) is prerequisite to the program; the course may be waived if the applicant has taken the GMAT and scored at least 600 or has already completed a graduate degree. Each student is assigned to a cohort of approximately 25 students who continue together through completion of their MBA program.

Career Paths

• Business/organizational consultant
• Finance manager
• Marketing specialist
• Corporate planner
• Midlevel corporate manager

Partnerships

University of Maryland University College has established academic partnerships with universities in Argentina, Belgium, Hungary, India, and China. MBA students may participate with students from these universities in company-sponsored projects, which are arranged through a series of business partnerships in these countries.
REQUIRED COURSES: MASTER OF BUSINESS ADMINISTRATION

<table>
<thead>
<tr>
<th>Initial Requirement</th>
<th>UCSP 611 Introduction to Graduate Library Research Skills (0)</th>
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<tbody>
<tr>
<td>to be taken within the first 6 credits of study</td>
<td>AMBA 600 MBA Fundamentals (3)</td>
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Course Sequencing: All seminars must be taken in the order listed.

Core Courses

AMBA 610 The Manager in Organizations and Society (6)
AMBA 620 Managing People and Groups in the Global Workplace (6)
AMBA 630 The Economics of Management Decisions (6)
AMBA 640 Managing Projects, Operations, and Information Systems (6)
AMBA 650 Marketing Management and Innovation (6)
AMBA 660 Managing Global Business (6)
AMBA 670 Managing Strategy in the Global Marketplace (6)*

Alternate Course Choice

*Students who transfer 3 credits of graduate coursework from another university may take AMBA 617 Strategic Action Planning (3) in place of AMBA 670 (6). Information on transfer credit may be found on p. 126.

MASTER OF DISTANCE EDUCATION

Program Description

Distance education and e-learning have expanded rapidly in the past few years, not just in the public and private education sectors, but also in the training sectors of the government, the military, and for-profit and nonprofit businesses. The demand for qualified managers and leaders in the field will create many new career opportunities. The Master of Distance Education (MDE) is designed to develop general knowledge and competencies in all aspects of both the business and technical issues related to distance education. The goal of the program is to produce individuals who are capable of managing distance education enterprises within a wide variety of organizational structures.

Program Objectives

Graduates of the program will be able to

- Develop and communicate a mission and vision for the implementation of distance education within an organization.
- Function effectively as leaders, managers, and team members within a distance education or training organization.
- Develop strategic goals and business plans for distance education within an organization.
- Analyze and recommend an organizational distance education technology plan and manage the implementation of that technology in distance delivery.

Course descriptions are found on pp. 69–107.
• Design, implement, and assess the necessary support services for a distance education program.

• Demonstrate competency in organizational and management processes, leadership and change management, information technology, business development, strategic action planning, problem solving, ethics, and social responsibility.

Program Overview
The curriculum requires 36 credits of coursework, including 12 credits of core coursework, 21 credits of specialization coursework, and a 3-credit capstone course.

Specializations
The Master of Distance Education offers three specializations, each covering subject areas relevant to today’s career fields. Each specialization prepares students for one of several possible career paths, depending on the student’s background and employer criteria.

Distance Education Policy and Management
The policy and management specialization focuses on the reasons why investment in education is so highly valued by governments and individuals and how distance education programs are budgeted and their costs evaluated. The core of this specialization examines the technology costs and economics of distance learning and other management competencies.

CAREER PATHS
• Director of distance learning; director of extended education; access director; director of continuing education
• Project/program manager/director
• Coordinator of online instruction
• Financial advisor/account manager; financial analyst/financial manager
• Distance learning librarian

Distance Education Teaching and Training
The objective of the teaching and training specialization is to educate managers about the demands placed on teaching personnel and trainers by emerging information and communications technologies. To deal with the specific teaching-related aspects of distance education, this specialization examines the instructional design process, as well as the integration of the appropriate selection of media. The specialization examines the technology-related aspects of distance learning and specific management-related issues such as intellectual property, accreditation, and quality assurance.

CAREER PATHS
• Manager of online teaching/tutoring/training
• Online pedagogy expert
• Coordinator of online instruction
• Online librarian/resource manager
• Program evaluator/educational consultant
• Subject matter expert for distance education

Distance Education Technology
The objective of the technology specialization is to train managers in the technology-related aspects of distance education program development, including setting up appropriate technology configurations, selecting tools, and managing the aspects of media integration and course design and development affected by technology. Managers are also made critically aware of the intricate relationship of globalization and communication technologies, which exert a considerable influence in reshaping distance education.

This specialization first provides a foundation in the relevant history pertaining to media and technology in distance education. It sets a framework for guiding appropriate technology choices and provides an in-depth understanding of both asynchronous and synchronous technologies.

CAREER PATHS
• Technical director
• Production manager
• Technical expert/advisor/consultant
• Coordinator of online instruction
• Online course support specialist

Partnerships
The Master of Distance Education program is offered in partnership with Carl von Ossietzky University of Oldenburg, Germany, a leading German institution with extensive experience in distance education. More information is available on p. 5.

Course descriptions are found on pp. 69–107.
### REQUIRED COURSES: MASTER OF DISTANCE EDUCATION

<table>
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<tr>
<th>Initial Requirement</th>
<th>UCSP 611</th>
<th>Introduction to Graduate Library Research Skills (0)</th>
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**Course Sequencing**
OMDE 601 must be taken as the first course.

<table>
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<tr>
<th>Core Courses</th>
<th>OMDE 601</th>
<th>Foundations of Distance Education (3)</th>
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<tr>
<td></td>
<td>OMDE 603</td>
<td>Technology in Distance Education (3)</td>
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<td>OMDE 610</td>
<td>Teaching and Learning in Online Distance Education (3)</td>
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<td>OMDE 606</td>
<td>Costs and Economics of Distance Education (3)</td>
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<tr>
<td></td>
<td>OMDE 608</td>
<td>Learner Support in Distance Education and Training (3)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Capstone Course</th>
<th>OMDE 670</th>
<th>Portfolio and Project in Distance Education (3)</th>
</tr>
</thead>
</table>

**Distance Education Policy and Management**

<table>
<thead>
<tr>
<th>Specialization Courses</th>
<th>DEPM 604</th>
<th>Leadership in Distance Education (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DEPM 609</td>
<td>Distance Education Systems (3)</td>
</tr>
<tr>
<td></td>
<td>DETT 611</td>
<td>Library and Intellectual Property Issues in Distance Education (3)</td>
</tr>
<tr>
<td></td>
<td>DETT 615</td>
<td>Assessment and Quality Assurance in Distance Education (3)</td>
</tr>
<tr>
<td></td>
<td>DEPM 622</td>
<td>The Business of Distance Education (3)</td>
</tr>
<tr>
<td></td>
<td>DEPM 625</td>
<td>Distance Education, Globalization, and Development (3)</td>
</tr>
</tbody>
</table>

**Distance Education Teaching and Training**

<table>
<thead>
<tr>
<th>Course Sequencing</th>
<th>DETC 620 is a prerequisite to EDTC 650.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Specialization Courses</th>
<th>DETT 607</th>
<th>Instructional Design and Course Development in Distance Education (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DETC 620</td>
<td>Training and Learning with Multimedia (3)</td>
</tr>
<tr>
<td></td>
<td>DETT 611</td>
<td>Library and Intellectual Property Issues in Distance Education (3)</td>
</tr>
<tr>
<td></td>
<td>DETC 650</td>
<td>Special Topics in Instructional Technology (3)</td>
</tr>
<tr>
<td></td>
<td>DETT 621</td>
<td>Training at a Distance (3)</td>
</tr>
<tr>
<td></td>
<td>DETT 615</td>
<td>Assessment and Quality Assurance in Distance Education (3)</td>
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</table>

**Distance Education Technology**

<table>
<thead>
<tr>
<th>Specialization Courses</th>
<th>DETT 607</th>
<th>Instructional Design and Course Development in Distance Education (3)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>DETC 630</td>
<td>Synchronous and Asynchronous Learning Systems in Distance Education (3)</td>
</tr>
<tr>
<td></td>
<td>DETC 620</td>
<td>Training and Learning with Multimedia (3)</td>
</tr>
<tr>
<td></td>
<td>DEPM 604</td>
<td>Leadership in Distance Education (3)</td>
</tr>
<tr>
<td></td>
<td>DEPM 625</td>
<td>Distance Education, Globalization, and Development (3)</td>
</tr>
<tr>
<td></td>
<td>IMAT 639</td>
<td>Internet Multimedia Applications (3)</td>
</tr>
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</table>

Course descriptions are found on pp. 69–107.
## RELATED CERTIFICATE PROGRAMS

### Initial Requirement

**to be taken within the first 6 credits of study**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>UCSP 611</td>
<td>Introduction to Graduate Library Research Skills (0)</td>
</tr>
</tbody>
</table>

### Distance Education, Globalization, and Development

**Required Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OMDE 601</td>
<td>Foundations of Distance Education (3)</td>
</tr>
<tr>
<td>OMDE 606</td>
<td>Costs and Economics of Distance Education (3)</td>
</tr>
<tr>
<td>DEPM 625</td>
<td>Distance Education, Globalization, and Development (3)</td>
</tr>
<tr>
<td>DETC 630</td>
<td>Synchronous and Asynchronous Learning Systems in Distance Education (3)</td>
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</table>

### Distance Education Leadership

**Required Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
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<tbody>
<tr>
<td>OMDE 601</td>
<td>Foundations of Distance Education (3)</td>
</tr>
<tr>
<td>OMDE 603</td>
<td>Technology in Distance Education (3)</td>
</tr>
<tr>
<td>OMDE 610</td>
<td>Teaching and Learning in Online Distance Education (3)</td>
</tr>
<tr>
<td>DEPM 604</td>
<td>Leadership in Distance Education (3)</td>
</tr>
</tbody>
</table>

### E-Learning and Instructional Systems Design*

**Required Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
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<tbody>
<tr>
<td>EDUC 602</td>
<td>Instructional Systems Development I (3)*</td>
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<tr>
<td>EDUC 603</td>
<td>Instructional Systems Development II (3)*</td>
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<tr>
<td>OMDE 603</td>
<td>Technology in Distance Education (3)</td>
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<tr>
<td>DETT 621</td>
<td>Training at a Distance (3)</td>
</tr>
</tbody>
</table>

### Foundations of Distance Education

**Required Courses**

<table>
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<tr>
<th>Course</th>
<th>Description</th>
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<tbody>
<tr>
<td>OMDE 601</td>
<td>Foundations of Distance Education (3)</td>
</tr>
<tr>
<td>OMDE 603</td>
<td>Technology in Distance Education (3)</td>
</tr>
<tr>
<td>OMDE 606</td>
<td>Costs and Economics of Distance Education (3)</td>
</tr>
<tr>
<td>OMDE 608</td>
<td>Learner Support in Distance Education and Training (3)</td>
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</table>

### Library Services in Distance Education

**Required Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OMDE 601</td>
<td>Foundations of Distance Education (3)</td>
</tr>
<tr>
<td>OMDE 603</td>
<td>Technology in Distance Education (3)</td>
</tr>
<tr>
<td>OMDE 610</td>
<td>Teaching and Learning in Online Distance Education (3)</td>
</tr>
<tr>
<td>DETT 611</td>
<td>Library and Intellectual Property Issues in Distance Education (3)</td>
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</tbody>
</table>

### Policy and Management in Distance Education

**Required Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OMDE 606</td>
<td>Costs and Economics of Distance Education (3)</td>
</tr>
<tr>
<td>DEPM 622</td>
<td>The Business of Distance Education (3)</td>
</tr>
<tr>
<td>DETT 615</td>
<td>Assessment and Quality Assurance in Distance Education (3)</td>
</tr>
<tr>
<td>DEPM 604</td>
<td>Leadership in Distance Education (3)</td>
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</table>

### Teaching and Training at a Distance

**Required Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OMDE 610</td>
<td>Teaching and Learning in Online Distance Education (3)</td>
</tr>
<tr>
<td>DETT 607</td>
<td>Instructional Design and Course Development in Distance Education (3)</td>
</tr>
<tr>
<td>DETC 620</td>
<td>Training and Learning with Multimedia (3)</td>
</tr>
<tr>
<td>DETT 621</td>
<td>Training at a Distance (3)</td>
</tr>
</tbody>
</table>

### Technology in Distance Education

**Required Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OMDE 603</td>
<td>Technology in Distance Education (3)</td>
</tr>
<tr>
<td>DETC 630</td>
<td>Synchronous and Asynchronous Learning Systems in Distance Education (3)</td>
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<tr>
<td>IMAT 639</td>
<td>Internet Multimedia Applications (3)</td>
</tr>
<tr>
<td>DETC 620</td>
<td>Training and Learning with Multimedia (3)</td>
</tr>
</tbody>
</table>

*This certificate is offered in partnership with University of Maryland, Baltimore County (UMBC). EDUC 602 and 603 are UMBC courses; UMUC students must register for these courses through UMBC as visiting students.

Course descriptions are found on pp. 69–107.
MASTER OF EDUCATION IN INSTRUCTIONAL TECHNOLOGY

Program Description
As technology advances more quickly than ever before, increasing numbers of pre-K–12 educators are looking for ways to strengthen teaching and learning through technology integration. The Master of Education (MEd) in instructional technology is designed for two broad groups of students: pre-K–12 teachers, administrators, technology integration specialists, and staff developers seeking to develop expertise in instructional technology for teaching and learning and other educators and potential career changers interested in technology integration in pre-K–12 schools. The curriculum focuses on three interrelated areas of study: curriculum and instruction, technology, and leadership and management. The program seeks to produce graduates who have the knowledge and skills needed to incorporate technology effectively into pre-K–12 curricula, instruction, and assessment; demonstrate expertise in current and emerging instructional technologies; understand the role of technology in the contemporary school; and are ready to lead change efforts at the classroom, school, and district levels.

Note: The MEd is not an initial teacher preparation program. Graduates who wish to become K–12 teachers in the public schools and who do not yet have state licensure to teach may need to pursue an initial teacher certification program, based on state or national requirements.

Students interested in coursework related to teacher certification should refer to UMUC’s Teacher Education Reading Strand and Alternate Teacher Preparation Program (pp. 67–68).

Program Objectives
Graduates of the program will be able to
• Integrate technology in the schools to strengthen and transform teaching and student learning.
• Use a range of technologies to communicate and collaborate with students, colleagues, parents, and other audiences.
• Create multimedia and Web-based products that advance student learning.
• Apply technology to meet the needs of a diverse school population.
• Implement professional development for teachers and administrators related to technology integration.
• Apply leadership skills to establish a vision for technology integration, ensure access, design technology plans and budgets, and acquire resources.
• Use reflection, critical thinking, and research to make sound decisions regarding technology and student learning, advocate for change, and build program support.

Program Overview
The Master of Education degree program requires 33 credits of coursework, including 30 credits of core courses and a 3-credit integrative capstone project.

Career Paths
• Teacher leader in a school, related to technology integration
• Staff developer or technology integration specialist at the school, district, or state level
• Developer of multimedia for education or training
• Distance education teacher for virtual K–12 schools

Partnerships
UMUC currently offers programs in collaboration with public school districts, including Montgomery County Public Schools in Maryland.

Note: School or district administrators who are interested in developing a cohort program for their school(s) are encouraged to contact the Teacher Education Department at 301-985-7056.

Course descriptions are found on pp. 69–107.
## REQUIRED COURSES: MASTER OF EDUCATION IN INSTRUCTIONAL TECHNOLOGY

<table>
<thead>
<tr>
<th>Initial Requirement</th>
<th>UCSP 611</th>
<th>Introduction to Graduate Library Research Skills (0)</th>
</tr>
</thead>
</table>

**Course Sequencing**

- Courses should be taken in the order listed.
- EDTC 600 must be taken during the first session.
- EDTC 605 must be taken within the first 6 credits.
- EDTC 610 is prerequisite to EDTC 620.
- EDTC 620 (or DETT 620) is prerequisite to EDTC 650.
- Students must have completed 27 credits of coursework before taking EDTC 670.
- It is recommended that students take EDTC 670 as the last course.

### Core Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDTC 600</td>
<td>Foundations of Technology in Teaching and Learning</td>
<td>3</td>
</tr>
<tr>
<td>EDTC 605</td>
<td>Digital Information Literacy for K–12 Educators</td>
<td>3</td>
</tr>
<tr>
<td>EDTC 610</td>
<td>Web-Based Learning and Teaching: Design and Pedagogy</td>
<td>3</td>
</tr>
<tr>
<td>EDTC 615</td>
<td>Using Technology for Instructional Improvement</td>
<td>3</td>
</tr>
<tr>
<td>EDTC 620</td>
<td>Technology in K–12 Education: Synchronous, Asynchronous, and Multimedia Technologies</td>
<td>3</td>
</tr>
<tr>
<td>EDTC 625</td>
<td>Hardware and Software in Instructional Development</td>
<td>3</td>
</tr>
<tr>
<td>EDTC 630</td>
<td>Administration of Technology Initiatives: Planning, Budgeting, and Evaluation</td>
<td>3</td>
</tr>
<tr>
<td>EDTC 640</td>
<td>Technology Change Management in Schools</td>
<td>3</td>
</tr>
<tr>
<td>EDTC 645</td>
<td>Integration of Technology: Global Perspectives</td>
<td>3</td>
</tr>
<tr>
<td>EDTC 650</td>
<td>Special Topics in Instructional Technology</td>
<td>3</td>
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</table>

### Capstone Course

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDTC 670</td>
<td>Integrative Capstone Project</td>
<td>3</td>
</tr>
</tbody>
</table>

## MASTER OF INTERNATIONAL MANAGEMENT

### Program Description

In our increasingly globalized world, business leaders cannot ignore what goes on beyond U.S. borders. The Master of International Management (MIM) is designed for midcareer professionals who want to delve more deeply into international business and commerce and learn how to overcome obstacles in order to succeed in the field. The curriculum emphasizes developing skills for assessing the international competitive structure of industries, building marketing and business plans, formulating market-entry strategies, and managing country and global business risk. The goal is to help students develop a working knowledge of transnational business operations and the global environment and an understanding of how both affect their own organization and management.

### Program Objectives

Graduates of the program will be able to

- Demonstrate a global perspective in business operations/ processes.
- Increase the competitiveness of their organizations.

Course descriptions are found on pp. 69–107.
Program Overview

The curriculum requires 36 credits of coursework and consists of 12 credits of core coursework, 21 credits of specialization coursework, and a 3-credit capstone course.

Specializations

The Master of International Management degree program offers three specializations, each covering subject areas relevant to today’s career fields. Each specialization prepares students for one of several possible career paths, depending on the student’s background and employer criteria.

International Enterprise Management

The international enterprise management specialization prepares managers to plan and execute strategies in a global environment, as well as to identify and take advantage of global business opportunities. The specialization covers international trade and economic policy, strategic investment and partnering, issues and practices in human resource management, financial management in organizations, multinational financial management, information systems for managers, and international marketing management.

CAREER PATHS

• Senior-level manager in a multinational enterprise
• International business generalist
• International business consultant
• Director of an international business unit
• Senior policy analyst for multinational enterprise

International Financial Management

The international financial management specialization prepares managers to deal with an organization’s financial operations in a global context. The specialization covers international trade and economic policy; strategic investment and partnering; financial management in organizations; capital markets, institutions, and long-term financing; investment valuation; strategic financial management; and multinational financial management. The program emphasizes development of management skills and the use of financial analysis in decision making and performance management in global organizations.

CAREER PATHS

• Controller or treasurer for an international company/organization
• International financial manager
• Capital investment analyst
• Financial liaison with international business units
• Credit or cash manager
• International financial consultant or advisor
• International financial, budget, or management analyst

International Marketing Management

The international marketing management specialization creates a solid foundation for marketing management with a particular focus on marketing in a global environment. It is designed for managers in the public, private, or nonprofit sectors who need to market their organization’s products and services to consumers or other businesses domestically and internationally. The specialization focuses on the knowledge and skills that managers need in order to attract customers. Coursework covers defining the scope of 21st century marketing, developing and executing effective marketing strategies, adapting to rapidly changing technologies, building customer satisfaction and retention, and facilitating communications successfully (from the international organization to the customer as well as from the international customer to the organization).

CAREER PATHS

• International marketing manager (business-to-business or business-to-consumer)
• Internet marketing manager
• Direct marketing manager
• International product/brand manager
• International manufacturer’s representative
• International account executive (business or consumer products)
• International market research analyst
• International promotions manager

Course descriptions are found on pp. 69–107.
### REQUIRED COURSES: MASTER OF INTERNATIONAL MANAGEMENT

**Initial Requirement**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>UCSP 611 Introduction to Graduate Library Research Skills</td>
<td>0</td>
</tr>
</tbody>
</table>

**Course Sequencing**

- IMAN 601 must be completed during the first session of enrollment.
- Students must complete 30 credits, including other core requirements, before enrolling in IMAN 670.
- MGMT 640 is a prerequisite to FIN 610

**Core Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMAN 601</td>
<td>Strategic Management in a Global Environment (3)</td>
</tr>
<tr>
<td>MGMT 615</td>
<td>Intercultural Communication and Leadership (3)</td>
</tr>
<tr>
<td>MGMT 640</td>
<td>Financial Decision Making (3)</td>
</tr>
<tr>
<td>IMAN 635</td>
<td>Managing Country Risk (3)</td>
</tr>
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</table>

**Capstone Course**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMAN 670</td>
<td>Managing Overseas Operations (3)</td>
</tr>
</tbody>
</table>

### International Enterprise Management

**Course Sequencing**

- MGMT 640 (core course) is a prerequisite to FIN 610.
- FIN 610 is a prerequisite to FIN 640.

**Specialization Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMAN 615</td>
<td>Strategic Investment and Partnering (3)</td>
</tr>
<tr>
<td>IMAN 625</td>
<td>International Trade and Economic Policy (3)</td>
</tr>
<tr>
<td>HRMD 610</td>
<td>Issues and Practices in Human Resource Management (3)</td>
</tr>
<tr>
<td>FIN 610</td>
<td>Financial Management in Organizations (3)</td>
</tr>
<tr>
<td>FIN 640</td>
<td>Multinational Financial Management (3)</td>
</tr>
<tr>
<td>ISAS 600</td>
<td>Information Systems for Managers (3)</td>
</tr>
<tr>
<td>MRKT 605</td>
<td>International Marketing Management (3)</td>
</tr>
</tbody>
</table>

### International Financial Management

**Course Sequencing**

- MGMT 640 (core course) is a prerequisite to FIN 610.
- FIN 610 is a prerequisite to FIN 640.
- FIN 610, 620, and 630 are prerequisite to FIN 660.

**Specialization Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMAN 615</td>
<td>Strategic Investment and Partnering (3)</td>
</tr>
<tr>
<td>IMAN 625</td>
<td>International Trade and Economic Policy (3)</td>
</tr>
<tr>
<td>FIN 610</td>
<td>Financial Management in Organizations (3)</td>
</tr>
<tr>
<td>FIN 620</td>
<td>Capital Markets, Institutions, Long-Term Financing (3)</td>
</tr>
<tr>
<td>FIN 630</td>
<td>Investment Valuation (3)</td>
</tr>
<tr>
<td>FIN 640</td>
<td>Multinational Financial Management (3)</td>
</tr>
<tr>
<td>FIN 660</td>
<td>Strategic Financial Management (3)</td>
</tr>
</tbody>
</table>

### International Marketing Management

**Course Sequencing**

- MGMT 650 must be completed before MRKT 604.

**Specialization Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMAN 615</td>
<td>Strategic Investment and Partnering (3)</td>
</tr>
<tr>
<td>IMAN 625</td>
<td>International Trade and Economic Policy (3)</td>
</tr>
<tr>
<td>MRKT 605</td>
<td>International Marketing Management (3)</td>
</tr>
<tr>
<td>MRKT 601</td>
<td>Legal and Ethical Issues in Global Communications (3)</td>
</tr>
<tr>
<td>MRKT 602</td>
<td>Consumer Behavior (3)</td>
</tr>
<tr>
<td>MGMT 650</td>
<td>Research Methods for Managers (3)</td>
</tr>
<tr>
<td>MRKT 604</td>
<td>Marketing Intelligence and Research Systems (3)</td>
</tr>
</tbody>
</table>

Course descriptions are found on pp. 69–107.
## RELATED CERTIFICATE PROGRAMS

### Initial Requirement

*to be taken within the first 6 credits of study*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>UCSP 611 Introduction to Graduate Library Research Skills</td>
<td>0</td>
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</table>

### International Marketing

<table>
<thead>
<tr>
<th>Course Sequence</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>MRKT 605 must be taken first.</td>
<td>MRKT 605 International Marketing Management (3)</td>
</tr>
<tr>
<td></td>
<td>IMAN 625 International Trade and Economic Policy (3)</td>
</tr>
<tr>
<td></td>
<td>MRKT 602 Consumer Behavior (3)</td>
</tr>
<tr>
<td></td>
<td>MRKT 601 Legal and Ethical Issues in Global Communications (3)</td>
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</table>

### International Trade

<table>
<thead>
<tr>
<th>Course Sequence</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students must take IMAN 601 as the first course followed by IMAN 615. The remaining courses can be taken in any order.</td>
<td>IMAN 601 Strategic Management in a Global Environment (3)</td>
</tr>
<tr>
<td></td>
<td>IMAN 615 Strategic Investment and Partnering (3)</td>
</tr>
<tr>
<td></td>
<td>IMAN 625 International Trade and Economic Policy (3)</td>
</tr>
<tr>
<td></td>
<td>MRKT 605 International Marketing Management (3)</td>
</tr>
</tbody>
</table>

Course descriptions are found on pp. 69–107.
Program Description
There is substantial demand in the workforce for professionals and managers who possess specialized skills, knowledge, and abilities in both the accounting and financial management disciplines. The Master of Science (MS) in accounting and financial management is designed to help those individuals who want to raise their knowledge base in these areas, rather than seek a general management or general business-related degree, to move either into a position in the chief financial officer (CFO) career path or simply to move into another career field without becoming so specialized that they lose flexibility.

The program emphasizes understanding the financial reporting process and its effect on financial markets, as well as using and analyzing financial information to make informed management decisions. Subject matter from the accounting and finance disciplines is integrated in a capstone course that focuses on the application of principles, theories, and techniques previously covered in the curriculum. The goal is to prepare students to assume positions of increasing responsibility within the financial operations of an organization.

Program Objectives
Graduates of this program will be able to

- Successfully apply accounting and financial management concepts and principles in the analysis and resolution of strategic and operational problems.
- Utilize technology in the accounting and financial management of their organizations to share access to information for the purpose of improving the quality of decision making enterprise-wide.
- Apply finance and accounting principles in evaluating the costs and benefits of strategic investments.
- Evaluate issues and innovations in accounting and financial management and their effects on managerial decision making.
- Evaluate the effects of international standards and international diversification on accounting and financial management decision making.
- Demonstrate understanding of the ethical problems facing accounting and financial management.
- Assess and evaluate the state of corporate governance and internal controls.

Program Overview
The curriculum requires 36 credits, including 15 credits in accounting core courses, 18 credits in financial management core courses, and a 3-credit program capstone course.

Academic Preparation
Students must have completed 15 credits of undergraduate accounting coursework, with a grade of C or better in each course, before enrolling in any graduate accounting course. Students without recent coursework in accounting or economics are strongly advised to complete UCSP 620 and UCSP 621 before enrolling in MGMT 640.

Professional Certification
Successful completion of the program may satisfy the educational requirement for candidacy for the Certified Public Accountant (CPA) exam. Educational requirements to sit for the CPA exam vary among states. Students are responsible for staying abreast of the current requirements for the state in which they will sit for the exam or practice professionally.

Career Paths
- Chief financial officer
- Accounting or financial manager
- Fraud examiner
- Financial, budget, or management analyst
- Government accountant or auditor
- Internal auditor
- Financial liaison with business units
- Financial consultant or advisor

Course descriptions are found on pp. 69–107.
Partnership
An articulation agreement between the Graduate School of Management and Technology and UMUC’s School of Undergraduate Studies allows students who completed their undergraduate degree at UMUC with a major in accounting to reduce their total coursework for both degrees by up to 6 credits (two courses) and complete both degrees with a total of 150 credits of coursework.

The Graduate School of Management and Technology and the School of Undergraduate Studies have agreed that the UMUC BS in accounting and the MS in accounting and financial management, accounting and information technology, and management with a specialization in accounting will “share” a maximum of 6 credits of coursework and have selected certain courses that each program will accept from the other’s curriculum. The shared credits are restricted to the following substitutions:

- The Graduate School will accept either ACCT 426 Advanced Cost Accounting instead of ACCT 611 Management Accounting or ACCT 427 Advanced Auditing Theory and Practice instead of ACCT 612 Auditing Process.
- The School of Undergraduate Studies will accept either ACCT 612 Auditing Process instead of ACCT 427 Advanced Auditing Theory and Practice or ACCT 614 Accounting Information Systems instead of ACCT 326 Accounting Information Systems.

The total number of credits shared between the programs cannot exceed 6 credits, and the substitutions listed above are the only substitutions possible. Credits eligible for sharing must have been completed no earlier than five years before the beginning of graduate studies and no later than one year after the beginning of graduate studies.

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### REQUIRED COURSES: MASTER OF SCIENCE IN ACCOUNTING AND FINANCIAL MANAGEMENT

<table>
<thead>
<tr>
<th>Initial Requirement to be taken within the first 6 credits of study</th>
<th>UCSP 611 Introduction to Graduate Library Research Skills (0)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial Recommendation</td>
<td>Students without a background in finance or accounting should take UCSP 620 and 621.</td>
</tr>
<tr>
<td><strong>Course Sequencing</strong></td>
<td></td>
</tr>
<tr>
<td>- ACCT 610 must be taken before any other graduate accounting courses.</td>
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<tr>
<td>- MGMT 640 is a prerequisite for FIN 610.</td>
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<tr>
<td>- FIN 610 must be completed before any other financial management course.</td>
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<tr>
<td>- FIN 620 and 630 are prerequisites for FIN 660.</td>
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<tr>
<td>- FIN 630 is prerequisite to FIN 645.</td>
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<tr>
<td>- Students must complete all courses (except FIN 645 or ACCT 665) before enrolling in MSAF 670.</td>
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<tr>
<td>- Students are strongly encouraged to take ACCT 612 before ACCT 608.</td>
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</tr>
<tr>
<td><strong>Accounting Core Courses</strong></td>
<td></td>
</tr>
<tr>
<td>ACCT 610</td>
<td>Financial Accounting (3)</td>
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<tr>
<td>ACCT 608</td>
<td>Fraud Examination and Accounting Ethics (3)</td>
</tr>
<tr>
<td>ACCT 612</td>
<td>Auditing Process (3)</td>
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<tr>
<td>ACCT 613</td>
<td>Federal Income Taxation (3)</td>
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<tr>
<td>ACCT 665</td>
<td>Special Topics in Accounting (3)</td>
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<tr>
<td><strong>Finance Core Courses</strong></td>
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<tr>
<td>MGMT 640</td>
<td>Financial Decision Making for Managers (3)</td>
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<tr>
<td>FIN 610</td>
<td>Financial Management in Organizations (3)</td>
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<tr>
<td>FIN 620</td>
<td>Capital Markets, Institutions, and Long-Term Financing (3)</td>
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<tr>
<td>FIN 630</td>
<td>Investment Valuation (3)</td>
</tr>
<tr>
<td>FIN 645</td>
<td>Behavioral Finance (3)</td>
</tr>
<tr>
<td>FIN 660</td>
<td>Strategic Financial Management (3)</td>
</tr>
<tr>
<td><strong>Capstone Course</strong></td>
<td>MSAF 670 Accounting and Financial Management Capstone (3)</td>
</tr>
</tbody>
</table>

Course descriptions are found on pp. 69–107.
MASTER OF SCIENCE IN ACCOUNTING AND INFORMATION TECHNOLOGY

Program Description
Information technology has become ubiquitous in the world of accounting, and expertise in both areas sets employees apart from their peers. The Master of Science (MS) in accounting and information technology is designed for students who have backgrounds in finance or accounting and want to improve their knowledge of accounting information technology to advance their careers to either chief financial officer or chief information officer or to serve as liaisons between their organization's information technology department and executive leadership. It is also an appropriate track for professionals not currently in accounting or information technology who want to develop the skills they need to make a career change. The curriculum focuses on business processes with a broad business outlook and includes fraud examination, federal income taxation, accounting ethics, auditing, systems analysis and design, computer security, and more. The goal of the program is to give students the tools they need to bridge the gap between information technology and accounting in their organization and to develop ways to enhance that relationship.

Program Objectives
Graduates of this program will be able to

- Evaluate and design accounting and information systems to meet organizational goals.
- Develop and evaluate alternative solutions to organizational problems.

Program Overview
The curriculum requires 36 credits of coursework, including 18 credits in accounting core courses, 15 credits in information technology core courses, and one 3-credit program capstone course.

Academic Preparation
Students must have completed 15 credits of undergraduate accounting coursework, with a grade of C or better in each course, before enrolling in any graduate accounting course. Students without recent coursework in accounting are strongly advised to complete UCSP 620 before enrolling in ACCT 610.

Professional Certification
Successful completion of the program may satisfy the educational requirement for candidacy for the Certified Public Accountant (CPA) exam. Educational requirements to sit for the CPA exam vary among states. Students are responsible for staying abreast of the current requirements of the state in which they will sit for the exam or practice professionally.

Career Paths
- Liaison between the chief financial officer and chief information officer
- Public accountant or auditor
- Government accountant or auditor
- Management or systems analyst
- Fraud examiner or internal auditor

Partnership
An articulation agreement between the Graduate School of Management and Technology and UMUC's School of Undergraduate Studies allows students who completed their undergraduate degree at UMUC with a major in accounting to reduce their total coursework for both degrees by up to 6 credits (two courses), completing both degrees with a total of 150 credits of coursework. Details are on p. 22.

Course descriptions are found on pp. 69–107.
### REQUIRED COURSES: MASTER OF SCIENCE IN ACCOUNTING AND INFORMATION TECHNOLOGY

<table>
<thead>
<tr>
<th>Initial Requirement</th>
<th>UCSP 611</th>
<th>Introduction to Graduate Library Research Skills (0)</th>
</tr>
</thead>
</table>

**Course Sequencing**

- ACCT 610 must be taken before any other graduate accounting courses.
- It is strongly recommended that ACCT 612 be taken before ACCT 608.
- Students must complete all courses (except ACCT 665 or INFA 610) before enrolling in MSAT 670.

<table>
<thead>
<tr>
<th>Accounting Core Courses</th>
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<tbody>
<tr>
<td>ACCT 610 Financial Accounting (3)</td>
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<tr>
<td>ACCT 608 Fraud Examination and Accounting Ethics (3)</td>
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<td>ACCT 614 Accounting Information Systems (3)</td>
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<td>ACCT 612 Auditing Process (3)</td>
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<td>ACCT 613 Federal Income Taxation (3)</td>
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<td>ACCT 665 Special Topics in Accounting (3)</td>
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<tr>
<th>Information Technology Core Courses</th>
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<tbody>
<tr>
<td>ISAS 610 Information Systems Management and Integration (3)</td>
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<td>ISAS 630 Systems Analysis and Design (3)</td>
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<tr>
<td>ISAS 650 Information Technology, the CIO, and Organizational Transformation (3)</td>
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<tr>
<td>INFA 610 Computer Security, Software Assurance, Hardware Assurance, and Security Management (3)</td>
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<tr>
<td>IMAT 637 IT Acquisitions Management (3)</td>
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</tbody>
</table>

| Capstone Course                     | MSAT 670 | Accounting and Information Technology Capstone (3) |

### RELATED CERTIFICATE PROGRAM

<table>
<thead>
<tr>
<th>Initial Requirement</th>
<th>UCSP 611</th>
<th>Introduction to Graduate Library Research Skills (0)</th>
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**Accounting and Information Technology**

<table>
<thead>
<tr>
<th>Course Sequencing</th>
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<tbody>
<tr>
<td>ACCT 610 is a prerequisite for all required accounting courses.</td>
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<table>
<thead>
<tr>
<th>Required Courses</th>
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<tbody>
<tr>
<td>ACCT 610 Financial Accounting (3)</td>
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<td>ACCT 614 Accounting Information Systems (3)</td>
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<td>IMAT 637 IT Acquisitions Management (3)</td>
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<tr>
<td>INFA 610 Computer Security, Software Assurance, Hardware Assurance, and Security Management (3)</td>
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</table>

Course descriptions are found on pp. 69–107.
MASTER OF SCIENCE IN BIOTECHNOLOGY

Program Description
Biotechnology explores the delicate and complex relationship between technology and life. The Master of Science (MS) in biotechnology is designed for students with backgrounds in molecular biology who want to explore the ever-increasing role that technology plays in biological studies and research and in bio-businesses. The curriculum covers statistical processes, database systems, bioinformatics, gene expression data analysis, data structures, societal and business issues in biotechnology, and more. The goal of the program is to provide graduates with the specific knowledge and expertise needed to take on more prominent roles, such as laboratory supervisor, production manager, research scientist, bioinformatics analyst, or computational biologist, at their organizations.

Program Objectives
The graduates of this program will be able to
- Explore and apply the technologies currently in use in the biotechnology industry.
- Effectively evaluate and understand the regulatory role of federal and state governmental agencies as well as international bodies and professional groups.
- Examine the business of biotechnology, including financial, strategic, and human resource management in the industry.
- Utilize molecular biology concepts and software tools to have increased knowledge of bioinformatics.

Program Overview
The curriculum requires 36 credits of coursework, including 15 credits of core coursework, 18 credits of specialization coursework, and a 3-credit capstone course.

Academic Preparation
Students without a molecular biology background are required to take a college-level molecular biology course before taking the required program core.

Recognition
UMUC’s Master of Science in biotechnology has been designated a Professional Science Master’s Degree Program through the Council of Graduate Schools.

Specializations
This MS in biotechnology degree program offers three specializations, each covering subject areas relevant to today’s career fields. Each specialization prepares students for one of several possible career paths, depending on the student’s background and employer criteria.

Bioinformatics
The bioinformatics specialization provides students with a comprehensive and deep understanding of the many aspects of molecular biology and computational science. The curriculum covers a broad range of subjects, including biostatistics, databases and data structures, algorithms, gene expression analysis, and Perl.

CAREER PATHS
- Bioinformatics analyst
- Bioinformatics specialist
- Computational biologist
- Biological database specialist
- Instructor

Biosecurity and Biodefense
Biosecurity and biodefense are emerging as integral subject areas in the 21st century, and students who choose this specialization will hone their skills in researching, analyzing, and/or writing about the most recent developments in the emerging fields. The curriculum covers agents of bioterrorism, threat analysis and response, and information technology as it relates to biodefense.

Course descriptions are found on pp. 69–107.
# Master's Degree and Certificate Programs

## Career Paths

- Biodefense policy writer
- Research scientist

### Biotechnology Management

This biotechnology management specialization explores the biotechnology field as a commercial enterprise. The curriculum covers the commercialization of biotechnology, project selection and evaluation processes, and biomanufacturing.

## Required Courses: Master of Science in Biotechnology

<table>
<thead>
<tr>
<th>Initial Requirement</th>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>UCSP 611</td>
<td>Introduction to Graduate Library Research Skills (0)</td>
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</tbody>
</table>

**Course Sequencing**

- BIOT 640 must be taken as the first program course.
- All core courses with the BIOT designator must be completed before starting any specialization.
- BTMN 670 must be taken after completion of 27 credits of study.

**Core Courses**

- BIOT 640 Societal Issues in Biotechnology (3)
- BIOT 630 Introduction to Bioinformatics (3)
- BIOT 645 The Business of Biotechnology (3)
- BIOT 643 Techniques of Biotechnology (3)
- PMAN 634 Foundations of Project Management (3)

**Capstone Course**

- BTMN 670 Capstone in Biotechnology (3)

### Bioinformatics

**Course Sequencing**

- Students without a background in statistics are strongly encouraged to take STAT 200 before the specialization courses.
- BIFS 617 is a prerequisite to BIFS 619.

**Specialization Courses**

- BIFS 613 Statistical Processes for Biotechnology (3)
- BIFS 617 Advanced Bioinformatics (3)
- DBST 651 Relational Database Systems (3)
- BIFS 618 Java for Biotechnology Applications (3)
- BIFS 619 Gene Expression Data Analysis (3)
- BIFS 614 Data Structures and Algorithms (3)

### Biosecurity and Biodefense

**Course Sequencing**

Courses must be taken in the order listed, except that BTMN 632 can be taken at any time.

**Specialization Courses**

- BSBD 640 Agents of Bioterrorism (3)
- BSBD 641 Biosecurity and Bioterrorism (3)
- HSMN 610 Concepts in Homeland Security (3)
- HSMN 630 Business Continuity: Disaster Recovery, Planning, and Response (3)
- BSBD 642 Advanced Biosecurity and Bioterrorism (3)
- BTMN 632 Commercializing Biotechnology in Early-Stage Ventures (3)

### Biotechnology Management

**Specialization Courses**

- BTMN 632 Commercializing Biotechnology in Early-Stage Ventures (3)
- BTMN 634 Selection and Evaluation of Biotechnology Projects (3)
- BTMN 636 Biotechnology and the Regulatory Environment (3)
- TMAN 611 Principles of Technology Management (3)
- MRKT 600 Marketing Management (3)
- TMAN 625 Economics and Financial Analysis for Technology Managers (3)

Course descriptions are found on pp. 69–107.
**RELATED CERTIFICATE PROGRAMS**

<table>
<thead>
<tr>
<th>Initial Requirement</th>
<th>UCSP 611</th>
<th>Introduction to Graduate Library Research Skills (0)</th>
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</thead>
<tbody>
<tr>
<td>to be taken within the first 6 credits of study</td>
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</table>

### Bioinformatics

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>BIOT 630</th>
<th>Introduction to Bioinformatics (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>BIFS 613</td>
<td>Statistical Processes for Biotechnology (3)</td>
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<tr>
<td></td>
<td>BIFS 617</td>
<td>Advanced Bioinformatics (3)</td>
</tr>
<tr>
<td></td>
<td>DBST 651</td>
<td>Relational Database Systems (3)</td>
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<tr>
<td></td>
<td>BIFS 614</td>
<td>Data Structures and Algorithms (3)</td>
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</table>

### Biotechnology Management

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>BIOT 640</th>
<th>Societal Issues in Biotechnology (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>BIOT 630</td>
<td>Introduction to Bioinformatics (3)</td>
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<tr>
<td></td>
<td>BIOT 643</td>
<td>Techniques of Biotechnology (3)</td>
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<tr>
<td></td>
<td>BTMN 636</td>
<td>Biotechnology and the Regulatory Environment (3)</td>
</tr>
<tr>
<td></td>
<td>BTMN 632</td>
<td>Commercializing Biotechnology in Early-Stage Ventures (3)</td>
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**MASTER OF SCIENCE IN ENVIRONMENTAL MANAGEMENT**

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**Program Description**

Employment of environmental scientists is expected to increase by 25 percent between 2006 and 2016, much faster than the average job growth, according to the U.S. Department of Labor’s *Occupational Outlook Handbook*. Employers will need more management-level professionals for positions created to meet this growth. The Master of Science (MS) in environmental management is designed for professionals with several years of experience in the environmental field who want to pave a clear path to fill those management positions. The curriculum provides a solid conceptual and applied foundation in environmental management and includes waste management techniques; pollution prevention for water, air, and soil; environmental management systems; and options for effectively managing land and water resources. Graduates will have the skills, knowledge, and expertise to deftly evaluate various environmental issues and challenges and manage teams to respond to them effectively.

**Program Objectives**

Graduates of this program will be able to

- Describe the institutions and processes that have an impact on the development of environmental and energy laws and policy issues.
- Analyze, monitor, and mitigate impacts from an organization’s operations.
- Analyze and communicate health, safety, and environmental risks.
- Manage, plan, and conduct comprehensive environmental compliance, managerial, and liability audits for various industrial and commercial facilities.
- Develop teams and manage environmental projects/programs for an organization or government agency.

Course descriptions are found on pp. 69–107.
MASTER’S DEGREE AND CERTIFICATE PROGRAMS

Program Overview
The degree program requires 36 credits of coursework, including a 3-credit capstone course.

Academic Preparation
Students should have completed at least one undergraduate course each in chemistry and biology at an accredited university or college.

Recognition
UMUC’s Master of Science in biotechnology has been designated a Professional Science Master’s Degree Program through the Council of Graduate Schools.

Career Paths
- Environmental program/project specialist
- Environmental program/project manager
- Industrial compliance manager
- Environmental auditor
- Health and safety manager

REQUIRED COURSES: MASTER OF SCIENCE IN ENVIRONMENTAL MANAGEMENT

<table>
<thead>
<tr>
<th>Initial Requirement</th>
<th>UCSP 611</th>
<th>Introduction to Graduate Library Research Skills (0)</th>
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</thead>
</table>

| Course Sequencing | ENVM 646 and 648 must be taken within the first 9 credits of study. |

<table>
<thead>
<tr>
<th>Core Courses</th>
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<tbody>
<tr>
<td>ENVM 646 Environmental/Energy Law and Policy Development (3)</td>
</tr>
<tr>
<td>ENVM 648 Fundamentals of Environmental Systems (3)</td>
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<tr>
<td>ENVM 641 Environmental Auditing (3)</td>
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<tr>
<td>ENVM 643 Environmental Communications and Reporting (3)</td>
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<tr>
<td>ENVM 647 Environmental Risk Assessment (3)</td>
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<tr>
<td>ENVM 649 Principles of Waste Management and Pollution Control (3)</td>
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<td>ENVM 644 New Technologies in Environmental Management (3)</td>
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<td>ENVM 650 Land and Water Resource Management (3)</td>
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<td>ENVM 651 Watershed Planning Management (3)</td>
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<td>ENVM 652 Principles of Air Quality Management (3)</td>
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<td>ENVM 653 Land Use Management (3)</td>
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</table>

| Capstone Course | ENVM 670 Seminar in Environmental Management (3) |

RELATED CERTIFICATE PROGRAM

<table>
<thead>
<tr>
<th>Initial Requirement</th>
<th>UCSP 611</th>
<th>Introduction to Graduate Library Research Skills (0)</th>
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<table>
<thead>
<tr>
<th>Environmental Management</th>
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<tbody>
<tr>
<td>Course Sequencing</td>
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<tr>
<th>Required Courses</th>
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<tbody>
<tr>
<td>ENVM 646 Environmental/Energy Law and Policy Development (3)</td>
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<td>ENVM 647 Environmental Risk Assessment (3)</td>
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<tr>
<td>ENVM 649 Principles of Waste Management and Pollution Control (3)</td>
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</tbody>
</table>

Course descriptions are found on pp. 69–107.
MASTER OF SCIENCE IN FINANCIAL MANAGEMENT AND INFORMATION SYSTEMS

Program Description
Today’s financial managers are expected to have the knowledge and skills necessary to play an active role in the information systems operations of their organizations. The Master of Science (MS) in financial management and information systems is designed for mid-career financial professionals who want to learn to effectively manage information systems within their organization and/or to lead or integrate the specification, design, and implementation of financial systems within the organization. The program is also ideal for information systems professionals, chief information officers, and chief financial officers who would like to learn more about the integration of these two fields. The program is also appropriate for those not currently working in either field, but who have some academic background in business and want to transition into a position that focuses on financial management and information systems. The curriculum covers behavioral finance, investment valuation, financial decision making, capital markets, institutions, long-term financing, and more. The goal of the program is for graduates to be prepared to develop, implement, and manage effective information systems within a financial organization.

Program Objectives
Graduates of this program will be able to

- Successfully apply financial management and information systems concepts, principles, and analysis techniques in the strategic and operational decision-making processes within their organizations.
- Effectively communicate financial management and information systems ideas, concepts, and solutions.
- Evaluate issues and emerging trends in financial management and information systems technology and their potential impact on managerial decision making.
- Apply financial principles in evaluating the costs and benefits of information systems/technology investment.
- Evaluate and design financial information systems to meet organizational needs and objectives.

Program Overview
The curriculum requires 36 credits of coursework, including 18 credits of financial management core courses, 15 credits of information systems core courses, and a 3-credit program capstone course.

Career Paths
- Chief financial officer or chief information officer
- Financial manager
- Liaison between the chief financial officer and the chief information officer or from those offices to the business units
- Financial, budget, or management analyst

Academic Preparation
Students without recent coursework in accounting or economics are strongly advised to complete UCSP 620 and 621 before enrolling in MGMT 640.

Course descriptions are found on pp. 69–107.
### REQUIRED COURSES: MASTER OF SCIENCE IN FINANCIAL MANAGEMENT AND INFORMATION SYSTEMS

<table>
<thead>
<tr>
<th>Initial Requirement to be taken within the first 6 credits of study</th>
<th>UCSP 611</th>
<th>Introduction to Graduate Library Research Skills (0)</th>
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</table>

#### Course Sequencing
- MGMT 640 is a prerequisite for FIN 610.
- FIN 610 must be completed before any other financial management course.
- Students must complete all courses (except FIN 645 or INFA 610) before enrolling in MSFS 670.

| Financial Management Core Courses | MGMT 640 | Financial Decision Making for Managers (3) |
| FIN 610 | Financial Management in Organizations (3) |
| FIN 615 | Financial Analysis and Modeling (3) |
| FIN 620 | Capital Markets, Institutions, and Long-Term Financing (3) |
| FIN 630 | Investment Valuation (3) |
| FIN 645 | Behavioral Finance (3) |

| Information Technology Core Courses | ISAS 610 | Information Systems Management and Integration (3) |
| ISAS 630 | Systems Analysis and Design (3) |
| ISAS 650 | Information Technology, the CIO, and Organizational Transformation (3) |
| INFA 610 | Computer Security, Software Assurance, Hardware Assurance, and Security Management (3) |
| IMAT 637 | IT Acquisitions Management (3) |

| Capstone Course | MSFS 670 | Financial Management and Information Systems Capstone (3) |

### RELATED CERTIFICATE PROGRAM

<table>
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<tr>
<th>Initial Requirement to be taken within the first 6 credits of study</th>
<th>UCSP 611</th>
<th>Introduction to Graduate Library Research Skills (0)</th>
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#### Financial Management in Organizations
- MGMT 640 is prerequisite to FIN 610.
- FIN 610 must be completed before any other courses in financial management.

| Required Courses | MGMT 640 | Financial Decision Making for Managers (3) |
| FIN 610 | Financial Management in Organizations (3) |
| FIN 615 | Financial Analysis and Modeling (3) |
| FIN 620 | Capital Markets, Institutions, and Long-Term Financing (3) |
| FIN 630 | Investment Valuation (3) |

Course descriptions are found on pp. 69–107.
MASTER OF SCIENCE IN HEALTH ADMINISTRATION INFORMATICS

Program Description
As the American population ages, the United States health care industry is becoming home to some of the fastest growing career fields in the country. At the same time, information systems have become an important component of health care administration. The Master of Science (MS) in health administration informatics is designed for health care professionals who want to gain a deeper understanding of the information technology systems on which their job executions rely and for information technology professionals who work in health care settings. The curriculum covers computer security, software assurance, hardware assurance, project management, legal issues in health care, database systems, approaches to management, research methods, and more. The goal of the program is to give students a stronger understanding of the role that information science plays in the health care industry and prepare them to take on added professional responsibilities based on that understanding.

Program Objectives
Graduates of this program will be able to

• Develop management and technical competencies that are critical for overseeing the complex coordination and planning necessary to meet health administration informatics needs.
• Strategically plan, implement, and evaluate information systems and apply knowledge of legal, ethical, and quality management issues related to information technology for the health care setting.

Program Overview
The curriculum requires 36 credits of coursework, including 33 credits of core coursework and a 3-credit integrative capstone course.

Career Paths
• Health administration/informatics consultant
• Health administration informatics products vendor
• Health informatics/data analyst
• Health care information services

REQUIRED COURSES: MASTER OF SCIENCE IN HEALTH ADMINISTRATION INFORMATICS

<table>
<thead>
<tr>
<th>Initial Requirement</th>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>to be taken within the first 6 credits of study</td>
<td>UCSP 611</td>
<td>Introduction to Graduate Library Research Skills</td>
<td>0</td>
</tr>
</tbody>
</table>

Course Sequencing
• The recommended first courses are HCAD 600 and ITEC 610.
• Students will benefit most by taking the courses in the order listed.
• Students should have successfully completed a 3-credit course in financial decision making (with a minimum grade of C for an undergraduate course, B for a graduate course) before enrolling in HCAD 640.
• Students must have successfully completed 30 credits before enrolling in HAIN 670.

Core Courses
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCAD 600</td>
<td>Introduction to Health Care Administration</td>
<td>3</td>
</tr>
<tr>
<td>ITEC 610</td>
<td>Information Technology Foundations</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 650</td>
<td>Research Methods for Managers</td>
<td>3</td>
</tr>
<tr>
<td>HCAD 620</td>
<td>The U.S. Health Care System</td>
<td>3</td>
</tr>
<tr>
<td>INFA 610</td>
<td>Computer Security, Software Assurance, Hardware Assurance, and Security Management</td>
<td>3</td>
</tr>
<tr>
<td>HCAD 640</td>
<td>Financial Management for Health Care Organizations</td>
<td>3</td>
</tr>
<tr>
<td>HCAD 650</td>
<td>Legal Aspects of Health Care Administration</td>
<td>3</td>
</tr>
<tr>
<td>HAIN 661</td>
<td>Health Administration Informatics</td>
<td>3</td>
</tr>
<tr>
<td>ITEC 640</td>
<td>Information Technology Project Management</td>
<td>3</td>
</tr>
<tr>
<td>DBST 651</td>
<td>Relational Database Systems</td>
<td>3</td>
</tr>
<tr>
<td>IMAT 637</td>
<td>IT Acquisitions Management</td>
<td>3</td>
</tr>
</tbody>
</table>

Capstone Course
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HAIN 670</td>
<td>Health Administration Informatics Capstone</td>
<td>3</td>
</tr>
</tbody>
</table>

Course descriptions are found on pp. 69–107.
MASTER OF SCIENCE IN HEALTH CARE ADMINISTRATION

Program Description
The need for health care services—and professionals with expertise in health care administration—is expected to grow quickly as the U.S. population ages. In fact, the U.S. Department of Labor predicts the need for medical and health services managers will grow 16 percent between 2006 and 2016. The Master of Science (MS) in health care administration is designed to give midcareer professionals the specialized skills they need to fill those positions. It is also an appropriate program for those who have an undergraduate degree in health care but have not worked in the field. The curriculum covers financial decision making, research methods, information technology, long-term care, public health, legal issues, and more. The goal of the program is for students to garner a deeper understanding of the challenges the health care industry faces and apply their extensive knowledge of both the industry and management techniques to overcome those challenges.

Program Objectives
Graduates of this program will be able to

- Solve health care industry management challenges.
- Produce effective health care industry outcomes.
- Effect ethical decision making for managers in health care settings.

Program Overview
The curriculum requires 36 credits of coursework, including 9 credits in management foundation courses, 24 credits in health care administration core courses, and a 3-credit program capstone course.

Academic or Professional Preparation
The MS in health care administration is designed for students with educational and/or professional work experience in the health care field. Students who do not have an undergraduate degree in health care administration or a related field or who do not have professional health care industry work experience should choose the MS in management, health care administration specialization.

Career Paths
- Health services manager
- Health care business operator
- Health service project administrator
- Managed care manager

Course descriptions are found on pp. 69–107.
### REQUIRED COURSES: MASTER OF SCIENCE IN HEALTH CARE ADMINISTRATION

<table>
<thead>
<tr>
<th>Initial Requirement</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>to be taken within the first 6 credits of study</td>
<td>UCSP 611 Introduction to Graduate Library Research Skills (0)</td>
</tr>
</tbody>
</table>

**Course Sequencing**
- MGMT 640 is prerequisite to HCAD 640.
- MGMT 615 is prerequisite to HCAD 660.
- Students are strongly encouraged to take HCAD 660 and MGMT 615 as the first courses in the program.
- Students must complete 30 credits before enrolling in HCAD 670.

**Management Foundation Courses**
- MGMT 615 Intercultural Communication and Leadership (3)
- MGMT 640 Financial Decision Making for Managers (3)
- MGMT 650 Research Methods for Managers (3)

**Health Care Administration Core Courses**
- HCAD 600 Introduction to Health Care Administration (3)
- HCAD 610 Information Technology for Health Care Administration (3)
- HCAD 620 The U.S. Health Care System (3)
- HCAD 630 Public Health Administration (3)
- HCAD 635 Long-Term Care Administration (3)
- HCAD 640 Financial Management for Health Care Organizations (3)
- HCAD 650 Legal Aspects of Health Care Administration (3)
- HCAD 660 Health Care Institutional Organization and Management (3)

**Capstone Course**
- HCAD 670 Health Care Administration Capstone (3)

### RELATED CERTIFICATE PROGRAM

<table>
<thead>
<tr>
<th>Initial Requirement</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>to be taken within the first 6 credits of study</td>
<td>UCSP 611 Introduction to Graduate Library Research Skills (0)</td>
</tr>
</tbody>
</table>

**Health Care Administration**

**Course Sequencing**
- MGMT 615 is prerequisite to HCAD 660.
- MGMT 640 is prerequisite to HCAD 640.

*Note: Students who have not met course prerequisites may need to complete more than 18 credits to satisfy certificate requirements*

**Required Courses**
- HCAD 610 Information Technology for Health Care Administration (3)
- HCAD 620 The U.S. Health Care System (3)
- HCAD 630 Public Health Administration (3)
- HCAD 640 Financial Management for Health Care Organizations (3)
- HCAD 650 Legal Aspects of Health Care Administration (3)
- HCAD 660 Health Care Institutional Organization and Management (3)

Course descriptions are found on pp. 69–107.
MASTER’S DEGREE AND CERTIFICATE PROGRAMS

MASTER OF SCIENCE IN INFORMATION TECHNOLOGY

Program Description
Information technology (IT) is a broad term for a career field that includes Web site designers, network administrators, telecommunications managers, and dozens of other occupations related to the development, implementation, and management of information systems. The Master of Science (MS) in information technology is designed for students with a variety of educational backgrounds and work experiences who want to pursue careers in IT development, find themselves taking on IT-related roles in their current job, would like to serve as IT liaisons, or would like to better understand how their organization’s IT systems function and make use of them in the business realm. Depending on the specialization, the curriculum can include the study of concepts in systems engineering, e-business economics, e-marketing, relational database systems, software maintenance, satellite communication systems, network and Internet security, and more. The goal of the program is to give students a broad technical understanding of current and evolving technologies in the IT field with an emphasis on moving technology from the laboratory into business development.

Program Objectives
Graduates of this program will be able to

• Apply the principles and theories underlying applied information technology.
• Demonstrate an understanding of the technical and regulatory issues surrounding the Internet.
• Apply IT best practices to productivity and competitive advantage.
• Display an awareness of developments in the convergence of computer and telecommunications technologies.
• Discuss the role of information awareness and literacy in organizational decision making.
• Grasp the central role of software and hardware life cycles.

Program Overview
The curriculum requires 36 credits of coursework, including 15 credits of core coursework and 21 credits of specialization coursework.

Specializations
The MS in information technology degree program offers eight specializations, each covering subject areas relevant to today’s career fields. Each specialization prepares students for one of several possible career paths, depending on the student’s background and employer criteria.

Course descriptions are found on pp. 69–107.
Database Systems Technology

Database technology is pervasive in our society and is considered a core component of most businesses. The database systems technology specialization focuses on the design, development, and management of database technology. The primary focus is on relational databases. The curriculum also covers distributed databases, data warehousing, data mining, database administration, and database security. Laboratory experiences are included in most courses.

CAREER PATHS

- Technical leader
- Manager of data management systems
- Database administrator

E-Business

The e-business specialization examines how managers can design and operate Web sites and generally conduct e-commerce and e-business effectively. The specialization is structured to accommodate the needs of students who are specialists in information technology as well as those with little or no experience with computers. In addition to receiving a solid technology foundation, students are exposed to relevant business aspects, such as strategic planning, marketing planning, security planning, financial and economic aspects of e-business, and social, legal, and regulatory issues.

CAREER PATHS

- Web site designer
- E-marketing specialist
- E-security expert
- Web site operator
- E-government specialist

Homeland Security Management

The homeland security management specialization provides managers and practitioners with the background to prepare for and deal with a wide range of human-made and natural threats and vulnerabilities at the community and organizational level. The curriculum prepares students to perform security risk assessments and to develop strategies to mitigate threats to people, physical facilities, and information-dependent critical infrastructure, as well as to plan for and manage operational recovery. Courses also explore the evolving roles within various first responder communities regarding pre-event planning and post-event response.

CAREER PATHS

- Chief operation officer
- Facility or plant manager
- Facility security officer
- Military planner
- Federal, state, or local government emergency planner or policy maker
- Law enforcement, emergency, or medical practitioner or administrator

Informatics

The informatics specialization has a decidedly technical slant and is oriented toward the student seeking a generalist's view of IT. It offers a broadly based and strongly quantitative grounding in the various facets of information theory and best practices for developing a variety of systems and program products. Students receive an introduction to the major categories of IT endeavors, including networking, security, software development, databases, Web design, and IT acquisitions in order to be well prepared for the challenges of the workplace in the 21st century. The specialization also serves as a logical extension of coursework begun in programs offered at military institutions (listed on p. 5) with which UMUC has partnership agreements.

CAREER PATHS

- Programming and applications software development and acquisitions
- Software testing
- Network design and fabrication
- Customer service training/support
- Hardware acquisition and integration
- Interface design
- Publications and systems documentation
- Software quality assurance
- Internet site design, development, and management

Information Assurance

The information assurance specialization provides a thorough knowledge base for managers and technology professionals concerned with the design, development, implementation, operation, and management of secure information systems and with the protection of an organization's information assets. The specialization provides students with a practical understanding of the principles of data protection, network security, and computer forensics. The spe-
Specialization also introduces students to the ethical, legal, and policy issues associated with information security. Laboratory exercises are included in some courses to enhance the learning experience.

**CAREER PATHS**

- Chief security officer
- Network administrator
- Network professional
- Security administrator
- Security architect
- Security manager
- Security professional
- Security officer
- System administrator
- System professional

**Project Management**

The project management specialization provides a strong theoretical and practical foundation in project management. This specialization is designed to serve managers and other professionals who wish to acquire, enhance, and certify their knowledge and skills to successfully design, integrate, develop, and manage projects. Students gain hands-on experience using various project management tools and techniques to successfully manage real-world projects of varying sizes and degrees of complexity. Additionally, students apply emerging principles and methods in the project management field.

**CAREER PATHS**

- Program manager
- Project/product manager
- Government contractor

**RECOGNITION/PROFESSIONAL CERTIFICATION**

The Graduate School of Management and Technology is a Project Management Institute–Registered Educational Provider, and each specialization course is recognized by the institute as being equivalent to 45 professional development units. Each course, therefore, satisfies the educational/training requirement for Project Management Professional certification, which must be pursued independently through the institute. Professional development units also apply to recertification.

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**Software Engineering**

The software engineering specialization provides a foundation in technical concepts and design techniques, as well as management and teamwork approaches, for building software systems. The emphasis of this specialization is on implementing software engineering projects within cost and schedule by applying proven and innovative practices that overcome the shortcomings of an undisciplined approach.

**CAREER PATHS**

- Leader of a software development team
- Head of a development department
- Chief technical officer

**Telecommunications Management**

The telecommunications management specialization is designed to provide the technical knowledge and management skills needed to plan, acquire, operate, and evaluate telecommunication systems. This specialization emphasizes critical management concepts, such as the structure and environment of the telecommunications industry, strategic planning, financial management, and quality improvement.

**CAREER PATHS**

- Telecommunication system development and deployment specialist
- Network security manager
- Network manager and designer for local and wide area, wired, and wireless systems
- Information systems development and deployment specialist
- Telecommunication system business manager
- Federal, state, or local government telecommunication manager or contractor

Course descriptions are found on pp. 69–107.
# REQUIRED COURSES: MASTER OF SCIENCE IN INFORMATION TECHNOLOGY

## Initial Requirement

To be taken within the first 6 credits of study:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>UCSP 611</td>
<td>Introduction to Graduate Library Research Skills (0)</td>
</tr>
</tbody>
</table>

## Course Sequencing

ITEC 610 must be taken as one of the first two courses.

## Core Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITEC 610</td>
<td>Information Technology Foundations (3)</td>
</tr>
<tr>
<td>ITEC 620</td>
<td>Information Technology Infrastructure (3)</td>
</tr>
<tr>
<td>ITEC 630</td>
<td>Information Systems Analysis, Modeling, and Design (3)</td>
</tr>
<tr>
<td>ITEC 640</td>
<td>Information Technology Project Management (3)</td>
</tr>
<tr>
<td>TMAN 625</td>
<td>Economics and Financial Analysis for Technology Managers (3)</td>
</tr>
</tbody>
</table>

## Database Systems Technology

### Course Sequencing

DBST 651 and 652 must be taken in order, followed by any three other DBST courses, before DBST 670 can be taken.

### Specialization Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>DBST 651</td>
<td>Relational Database Systems (3)</td>
</tr>
<tr>
<td>DBST 652</td>
<td>Advanced Relational/Object-Relational Database Systems (3)</td>
</tr>
<tr>
<td>DBST 663</td>
<td>Distributed Database Management Systems (3)</td>
</tr>
<tr>
<td>DBST 665</td>
<td>Data Warehouse Technologies (3)</td>
</tr>
<tr>
<td>DBST 667</td>
<td>Data Mining (3)</td>
</tr>
<tr>
<td>DBST 668</td>
<td>Database Security (3)</td>
</tr>
<tr>
<td>DBST 670</td>
<td>Database Systems Administration (3)</td>
</tr>
</tbody>
</table>

## E-Business

### Course Sequencing

Courses must be taken in the order listed.

### Specialization Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBUS 610</td>
<td>Introduction to E-Business (3)</td>
</tr>
<tr>
<td>EBUS 620</td>
<td>E-Marketing (3)</td>
</tr>
<tr>
<td>EBUS 630</td>
<td>Social, Legal, Ethical, and Regulatory Issues (3)</td>
</tr>
<tr>
<td>EBUS 640</td>
<td>E-Technology (3)</td>
</tr>
<tr>
<td>EBUS 650</td>
<td>E-Development and Management (3)</td>
</tr>
<tr>
<td>EBUS 660</td>
<td>E-Business Economics (3)</td>
</tr>
<tr>
<td>EBUS 670</td>
<td>E-Business Capstone (3)</td>
</tr>
</tbody>
</table>

## Homeland Security Management

### Course Sequencing

HSMN 610 must be taken as one of the first two specialization courses.

### Specialization Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSMN 610</td>
<td>Concepts in Homeland Security (3)</td>
</tr>
<tr>
<td>HSMN 620</td>
<td>Physical Security (3)</td>
</tr>
<tr>
<td>HSMN 630</td>
<td>Business Continuity: Disaster Recovery, Planning, and Response (3)</td>
</tr>
<tr>
<td>INFA 660</td>
<td>Security Policy, Ethics, and the Legal Environment (3)</td>
</tr>
<tr>
<td>BSBD 641</td>
<td>Biosecurity and Bioterrorism (3)</td>
</tr>
<tr>
<td>ENER 603</td>
<td>Energy Infrastructure Management (3)</td>
</tr>
<tr>
<td>HSMN 670</td>
<td>Seminar in Homeland Security (3)</td>
</tr>
</tbody>
</table>

## Informatics

### Course Sequencing

Students must complete 6 hours of core coursework before taking first specialization course.

### Specialization Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SWEN 603</td>
<td>Systems Engineering (3)</td>
</tr>
<tr>
<td>DBST 651</td>
<td>Relational Database Systems (3)</td>
</tr>
<tr>
<td>SWEN 645</td>
<td>System and Software Standards and Requirements (3)</td>
</tr>
<tr>
<td>INFA 610</td>
<td>Computer Security, Software Assurance, Hardware Assurance, and Security Management (3)</td>
</tr>
<tr>
<td>IMAT 637</td>
<td>IT Acquisitions Management (3)</td>
</tr>
<tr>
<td>IMAT 638</td>
<td>Internet Multimedia Applications (3)</td>
</tr>
<tr>
<td>IMAT 670</td>
<td>Contemporary Topics in Informatics (3)</td>
</tr>
</tbody>
</table>

Course descriptions are found on pp. 69–107.
### Information Assurance

**Course Sequencing**
- Courses must be taken in the order listed.

**Specialization Courses**
- INFA 610 Computer Security, Software Assurance, Hardware Assurance, and Security Management (3)
- INFA 620 Network and Internet Security (3)
- INFA 630 Intrusion Detection and Intrusion Prevention (3)
- INFA 640 Cryptology and Data Protection (3)
- INFA 650 Computer Forensics (3)
- INFA 660 Security Policy, Ethics, and the Legal Environment (3)
- INFA 670 Information Assurance Capstone (3)

### Project Management

**Course Sequencing**
- PMAN 634 (or PMAN 600) must be taken as the first course.

**Specialization Courses**
- PMAN 634 Foundations of Project Management (3)*
- PMAN 637 Project Risk Management (3)
- PMAN 638 Project Communication Management (3)
- PMAN 639 Project Quality Management (3)
- PMAN 641 Project Procurement Management (3)
- PMAN 650 Financial Management of Projects (3)
- PMAN 670 Advanced Project Methods (3)*

*PMAN 600 Project Management: Foundations and Advanced Methods (6) may be taken instead of PMAN 634 and 670.

### Software Engineering

**Course Sequencing**
- Courses must be taken in the order listed.

**Specialization Courses**
- SWEN 603 Systems Engineering (3)
- SWEN 640 Software Project Management (3)
- SWEN 645 System and Software Standards and Requirements (3)
- SWEN 646 Software Design and Implementation (3)
- SWEN 647 Software Verification and Validation (3)
- SWEN 648 Software Maintenance (3)
- SWEN 670 Software Engineering Project (3)

### Telecommunications Management

**Course Sequencing**
- ITEC 620 should be taken before any specialization courses.
- Students must complete 27 credits of program coursework before taking TLMN 670.

**Specialization Courses**
- TLMN 602 Telecommunications Industry: Structure and Environment (3)
- TLMN 623 Telecommunications Networks (3)
- TLMN 630 Satellite Communication Systems (3)
- TLMN 641 Network Management and Design (3)
- TLMN 645 Wireless Telecommunications Systems (3)
- INFA 620 Network and Internet Security (3)
- TLMN 670 Capstone Course in Telecommunications Management (3)
# RELATED CERTIFICATE PROGRAMS

**Initial Requirement**

*to be taken within the first 6 credits of study*

| UCSP 611 | Introduction to Graduate Library Research Skills (0) |

## Database Systems Technology

**Required Courses**

| DBST 651 | Relational Database Systems (3) |
| DBST 652 | Advanced Relational/Object-Relational Database Systems (3) |
| DBST 663 | Distributed Database Management Systems (3) |
| DBST 665 | Data Warehouse Technologies (3) |
| DBST 670 | Database Systems Administration (3) |

## E-Business

**Required Courses**

| EBUS 610 | Introduction to E-Business (3) |
| EBUS 620 | E-Marketing (3) |
| EBUS 630 | Social, Legal, Ethical, and Regulatory Issues (3) |
| EBUS 640 | E-Technology (3) |
| EBUS 660 | E-Business Economics (3) |

## Foundations of Information Technology

**Required Courses**

| ITEC 610 | Information Technology Foundations (3) |
| ITEC 620 | Information Technology Infrastructure (3) |
| ITEC 630 | Information Systems Analysis, Modeling, and Design (3) |
| ITEC 640 | Information Technology Project Management (3) |
| TMAN 625 | Economics and Financial Analysis for Technology Managers (3) |

## Homeland Security Management

**Course Sequencing**

*HSMN 610 must be taken as one of the first two courses in the program.*

| HSMN 610 | Concepts in Homeland Security (3) |
| HSMN 620 | Physical Security (3) |
| HSMN 630 | Business Continuity: Disaster Recovery, Planning, and Response (3) |
| INFA 660 | Security Policy, Ethics, and the Legal Environment (3) |
| HSMN 670 | Seminar in Homeland Security (3) |

## Informatics

**Course Sequencing**

*IITEC 610 must be taken first.*

| ITEC 610 | Information Technology Foundations (3) |
| ITEC 620 | Information Technology Infrastructure (3) |
| DBST 651 | Relational Database Systems (3) |
| INFA 610 | Computer Security, Software Assurance, Hardware Assurance, and Security Management (3) |
| IMAT 637 | IT Acquisitions Management (3) |

## Information Assurance

**Required Courses**

| INFA 610 | Computer Security, Software Assurance, Hardware Assurance, and Security Management (3) |
| INFA 620 | Network and Internet Security (3) |
| INFA 630 | Intrusion Detection and Intrusion Prevention (3) |
| INFA 640 | Cryptology and Data Protection (3) |
| INFA 650 | Computer Forensics (3) |

Course descriptions are found on pp. 69–107.
## Project Management

**Course Sequencing**
PMAN 634 (or PMAN 600) must be taken as the first course.

**Required Courses**
- PMAN 634 Foundations of Project Management (3)*
- PMAN 637 Project Risk Management (3)
- PMAN 638 Project Communication Management (3)
- PMAN 639 Project Quality Management (3)
- PMAN 670 Advanced Project Methods (3)*

**Alternate Course Choice**
*PMAN 600 Project Management: Foundations and Advanced Methods (6) may be taken instead of PMAN 634 and 670.

## Software Engineering

**Required Courses**
- SWEN 603 Systems Engineering (3)
- SWEN 640 Software Project Management (3)
- SWEN 645 System and Software Standards and Requirements (3)
- SWEN 646 Software Design and Implementation (3)
- SWEN 647 Software Verification and Validation (3)

## Telecommunications Management

**Required Courses**
- ITEC 620 Information Technology Infrastructure (3)
- TLMN 602 Telecommunications Industry: Structure and Environment (3)
- TLMN 641 Network Management and Design (3)
- TLMN 645 Wireless Telecommunications Systems (3)
- TLMN 623 Telecommunications Networks (3)

Course descriptions are found on pp. 69–107.
MASTER OF SCIENCE IN MANAGEMENT

Accounting
Financial Management
Health Care Administration
Homeland Security Management
Human Resource Management
Information Systems and Services
Interdisciplinary Studies in Management
Marketing
Nonprofit and Association Management
Procurement and Contract Management
Project Management
Public Relations

Program Description
The Master of Science (MS) in management is designed for professionals who are assuming or want to assume greater management responsibilities within their organizations or are looking to pursue management positions at new organizations. Throughout the curriculum, major emphasis is placed on the effects rapid technological change has on organizations and administrative processes and the consequent ethical and moral responsibilities of managers to society at large. The goal of the program is to provide students with the skills and technical expertise that are the basis for success in modern organizations.

Program Objectives
Graduates of this program will be able to
• Utilize methods and conduct of organizational assessments.
• Evaluate the organization/environment relationship.
• Manage strategic planning.
• Demonstrate organizational communication and leadership.
• Budget and allocate resources.
• Manage organizational decision making.

Program Overview
The curriculum requires 36 credits of coursework, including 12 credits in core courses, 21 credits in specialization courses, and a 3-credit capstone course.

Specializations
The MS in management degree program offers 12 specializations, each covering subject areas relevant to today’s career fields. Each specialization prepares students for one of several possible career paths, depending on the student’s background and employer criteria.

Course descriptions are found on pp. 69–107.
MASTER’S DEGREE AND CERTIFICATE PROGRAMS

Accounting
The accounting specialization covers a broad range of accounting-related studies, especially in the areas of financial accounting, fraud detection and accounting ethics, management accounting, auditing process, income taxation, accounting information systems, and special topics that combine in-depth studies in management science and accounting.

PROFESSIONAL CERTIFICATION
Successful completion of the accounting specialization may satisfy the education requirements for candidacy for the Certified Public Accountant (CPA) examination. Educational requirements to sit for the CPA exam vary among states. Students are responsible for staying abreast of the current requirements of the state in which they will sit for the exam or practice professionally.

ACADEMIC PREPARATION
Students interested in the accounting specialization must have completed 15 credits of accounting coursework with a grade of C or better in each course prior to enrolling in any graduate level accounting course.

CAREER PATHS
• Public accountant or auditor
• Accounting manager
• Internal control/forensics accounting specialist
• Management accountant
• Government accountant or auditor
• Internal auditor
• Financial, budget, or management analyst
• Fraud examiner

PARTNERSHIP
An articulation agreement between the Graduate School of Management and Technology and UMUC’s School of Undergraduate Studies allows students who completed their undergraduate degree at UMUC with a major in accounting to reduce their total coursework for both degrees by up to 6 credits (two courses), completing both degrees with a total of 150 credits of coursework. Details are provided on p. 22.

Financial Management
The financial management specialization covers financial management in organizations, financial analysis and modeling, capital markets, institutions and long-term financial management, investment valuation and multinational financial management, behavioral finance and cost management, and strategic financial management. The specialization emphasizes development of management skills and the use of financial analyses in decision making and performance management.

CAREER PATHS
• Controller or treasurer
• Financial manager
• Capital investment analyst
• Financial liaison with business units
• Credit or cash manager
• Financial consultant or advisor
• Financial, budget, or management analyst
• Cost analyst or program analyst

Health Care Administration
The health care administration specialization provides an introduction to the health care industry and is designed for students who have little or no educational or work experience in the field. The curriculum examines the U.S. health care system and the legal, information technology, and financial aspects of management in the health care field.

CAREER PATHS
• Health services manager
• Health care business planner

Homeland Security Management
The homeland security management specialization provides managers and practitioners with the background to prepare for and deal with a wide range of human-made and natural threats and vulnerabilities at the community and organizational level. The curriculum prepares students to perform security risk assessments and to develop strategies to mitigate threats to people, physical facilities, and information-dependent critical infrastructure as well as plan for and manage operational recovery. Courses also explore the evolving roles within various first responder communities regarding pre-event planning and post-event response.
CAREER PATHS
• Enterprise chief operation officer
• Facility and plant manager
• Facility security officer
• Military planner
• Federal, state, and local government emergency planner and policy maker
• Law enforcement, emergency, and medical practitioner and administrator

Human Resource Management
The human resource management specialization is designed for individuals who intend to become human resource professionals, as well as for managers who plan to supervise staff and need to comprehend the issues, policies, and procedures involved in effectively managing people. Courses provide the theory, research, knowledge, and procedures used by human resource executives, generalists, and specialists. They examine traditional functions, such as staffing, compensation, training, and change management, as well as investigate emerging disciplines.

CAREER PATHS
• Human resources executive
• Human resources generalist
• Employee relations manager
• Staffing director
• Compensation manager
• Director of human resource training and development
• Organizational development and change consultant

Information Systems and Services
The information systems and services specialization explores the ways a manager can procure and use computer-based information systems to enhance decision making and organizational effectiveness. The specialization is structured to accommodate the needs of students who have little or no experience with computers as well as those with advanced computer skills. In addition to receiving a technological foundation, students are exposed to the interaction of technology, organizational behavior, strategic planning, project management, and systems analysis used to support an organization through its information systems.

CAREER PATHS
• Systems or business analyst
• Systems development manager
• Information security project or program manager

• Information security consultant
• Chief information officer
• Information security-aware general manager

Interdisciplinary Studies in Management
The interdisciplinary studies in management specialization is intended for students who want a broad exposure to major areas of study that are essential for managers in every organization. The curriculum covers fundamentals in human resources, project management, marketing, and information systems.

CAREER PATHS
• Human resource manager
• Marketing manager
• Board director
• General or regional manager

Marketing
The marketing specialization is designed for managers in the public, private, or nonprofit sectors who need to acquire customers for their products and services either internally or externally (business-to-business or business-to-consumer). The specialization focuses on the theories and skills managers need to know in order to attract customers: defining the scope of 21st-century marketing; developing and executing effective marketing strategies; adapting to rapidly changing technologies; building customer satisfaction and retention; and facilitating communication successfully from the organization to the customer as well as from the customer to the organization.

CAREER PATHS
• Marketing manager (business-to-business or business-to-consumer)
• Internet marketing manager
• Direct marketing manager
• Product/brand manager
• Manufacturer’s representative
• Retail manager
• Account executive (business or consumer products)
• Market research analyst
• Promotions manager

Course descriptions are found on pp. 69–107.
Nonprofit and Association Management
The nonprofit and association management specialization is designed for current and potential managers of organizations in the nonprofit sector, including associations, development organizations, foundations, and political organizations. A thorough understanding of the sector is provided, with a special emphasis on management of nonprofit organizations; financial management; revenue generation and cost control issues; legal foundations and governance; recruitment and management of volunteers; approaches to promotion, marketing, and fundraising; and outcome and process evaluation of nonprofits. Contemporary concerns such as organizational quality, diversity, and ethics also are examined.

CAREER PATHS
• Board member or director
• Executive director
• Executive vice president
• Chief executive officer
• Policy analyst
• Government liaison
• Director of marketing and development
• Program director
• Membership director
• Technical expert
• Social entrepreneur/nonprofit founder
• Volunteer

Procurement and Contract Management
The procurement and contract management specialization is designed for individuals who are involved in contract administration or procurement activities in the private, public, and not-for-profit sectors. The courses in this program provide a foundation for understanding both the strategic and operational aspects of the procurement function.

CAREER PATHS
• Contract specialist
• Contract officer
• Contract manager/administrator
• Procurement specialist
• Procurement manager/administrator
• Purchaser/buyer
• Logistics specialist

• Logistics analyst
• Logistics manager/administrator

Project Management
The project management specialization provides a strong theoretical and practical foundation in project management. The specialization is designed to serve managers and other professionals who wish to acquire, enhance, and certify their knowledge and skills to successfully design, integrate, develop, and manage projects. Students gain hands-on experience using various project management tools and techniques to successfully manage real-world projects of varying sizes and degrees of complexity. Additionally, students apply emerging principles and methods in the modern project management field.

CAREER PATHS
• Program manager
• Director
• Chief executive officer

RECOGNITION/PROFESSIONAL CERTIFICATION
The Graduate School of Management and Technology is a Project Management Institute–Registered Educational Provider.

Public Relations
The public relations specialization is designed to meet the needs of both entry-level employees and working professionals who seek a more formal grounding in the field. The specialization emphasizes public relations theory, legal and ethical issues, and the analytical and creative skills necessary to excel in the profession. The capstone experience provides an opportunity to observe and participate in the production and assessment of a public relations campaign in which students analyze the effects of various strategies and practices in the workplace.

CAREER PATHS
• Director of public relations
• Corporate communications manager
• Director of media relations
• Account manager
• Communications writer
• Director of public affairs
• Promotion director
• Internal communications manager

Course descriptions are found on pp. 69–107.
REQUIRED COURSES: MASTER OF SCIENCE IN MANAGEMENT

 initial Requirement to be taken within the first 6 credits of study

Course Sequencing
- MGMT 610 (or MGMT 630) must be taken within the first 6 credits.
- MGMT 640 and 650 should not be attempted simultaneously.
- Students must complete 24 credits, including other core requirements, before enrolling in MGMT 670.

Core Courses
- MGMT 610 The Manager in a Technological Society (3)*
- MGMT 615 Intercultural Communication and Leadership (3)*
- MGMT 640 Financial Decision Making for Managers (3)
- MGMT 650 Research Methods for Managers (3)

Capstone Course
- MGMT 670 Strategic Management Capstone

Alternate Course Choice
- MGMT 630 Organizational Theory and Behavior in a Global Environment (6) may be taken instead of MGMT 610 and 615.

Accounting

Course Sequencing
- ACCT 610 must be taken before any other graduate accounting courses.

Specialization Courses
- ACCT 610 Financial Accounting (3)
- ACCT 611 Management Accounting (3)
- ACCT 612 Auditing Process (3)
- ACCT 608 Fraud Examination and Accounting Ethics (3)
- ACCT 614 Accounting Information Systems (3)
- ACCT 613 Federal Income Taxation (3)
- ACCT 665 Special Topics in Accounting (3)

Financial Management

Course Sequencing
- MGMT 640 is prerequisite to FIN 610.
- FIN 610 is prerequisite to all other specialization courses.
- FIN 610, 620, and 630 are prerequisite to FIN 660.

Specialization Courses
- FIN 610 Financial Management in Organizations (3)
- FIN 615 Financial Analysis and Modeling (3)
- FIN 620 Capital Markets, Institutions, and Long-Term Financing (3)
- FIN 630 Investment Valuation (3)
- FIN 645 Behavioral Finance (3)
- FIN 660 Strategic Financial Management (3)
- FIN 640 Multinational Financial Management (3)

Health Care Administration

Course Sequencing
- MGMT 640 is prerequisite to HCAD 640.
- MGMT 615 is prerequisite to HCAD 660.

Specialization Courses
- HCAD 610 Information Technology for Health Care Administration (3)
- HCAD 620 The U.S. Health Care System (3)
- HCAD 630 Public Health Administration (3)
- HCAD 640 Financial Management for Health Care Organizations (3)
- HCAD 650 Legal Aspects of Health Care Administration (3)
- HCAD 660 Health Care Institutional Organization and Management (3)
- TMAN 632 Organizational Performance Management (3)

Course descriptions are found on pp. 69–107.
# REQUIRED COURSES: MASTER OF SCIENCE IN MANAGEMENT (continued)

## Homeland Security Management

### Course Sequencing
HSMN 610 must be taken as one of the first two specialization courses.

### Specialization Courses
- HSMN 610 Concepts in Homeland Security (3)
- HSMN 620 Physical Security (3)
- HSMN 630 Business Continuity: Disaster Recovery, Planning, and Response (3)
- INFA 660 Security Policy, Ethics, and the Legal Environment (3)
- BSBD 641 Biosecurity and Bioterrorism (3)
- ENER 603 Energy Infrastructure Management (3)
- HSMN 670 Seminar in Homeland Security (3)

## Human Resource Management

### Course Sequencing
Courses should be taken in the order listed.

### Specialization Courses
- HRMD 610 Issues and Practices in Human Resource Management (3)
- HRMD 620 Employee Relations (3)
- HRMD 630 Recruitment and Selection (3)
- HRMD 640 Job Analysis, Assessment, and Compensation (3)
- HRMD 650 Organizational Development and Change (3)
- HRMD 651 Current Perspectives in Training and Development (3)
- HRMD 665 Special Topics in Human Resource Management (3)

## Information Systems and Services

### Course Sequencing
ISAS 600 is a prerequisite for other ISAS courses.

### Specialization Courses
- ISAS 600 Information Systems for Managers (3)
- ISAS 610 Information Systems Management and Integration (3)
- ISAS 620 Information Systems Sourcing Management (3)
- ISAS 630 Systems Analysis and Design (3)
- ISAS 640 Decision and Support Systems and Expert Systems (3)
- ISAS 650 Information Technology, the CIO, and Organizational Transformation (3)
- IMAT 639 Internet Multimedia Applications (3)

## Interdisciplinary Studies in Management

### Specialization Courses
- MGMT 645 Legal Aspects of Management (3)
- MRKT 600 Marketing Management (3)*
- ISAS 600 Information Systems for Managers (3)
- HRMD 610 Issues and Practices in Human Resources Management (3)
- HSMN 630 Business Continuity: Disaster Recovery, Planning, and Response (3)
- MRKT 601 Legal and Ethical Issues in Global Communications (3)*
- PMAN 634 Foundations of Project Management (3)

### Alternate Course Choice
*MRKT 620 Marketing Principles, Regulation, and Ethical Issues (6) may be taken instead of MRKT 600 and 601.

## Marketing

### Course Sequencing
- Students must complete MRKT 600 and 601 (or MRKT 620) as their first specialization course(s).
- MGMT 650 must be completed before MRKT 604 and 606.

### Specialization Courses
- MRKT 600 Marketing Management (3)*
- MRKT 601 Legal and Ethical Issues in Global Communications (3)*
- MRKT 602 Consumer Behavior (3)
- MRKT 603 Brand Management (3)
- MRKT 604 Marketing Intelligence and Research Systems (3)
- MRKT 605 International Marketing Management (3)
- MRKT 606 Integrated Direct Marketing (3)

### Alternate Course Choice
*MRKT 620 Marketing Principles, Regulation, and Ethical Issues (6) may be taken instead of MRKT 600 and 601.

Course descriptions are found on pp. 69–107.
### REQUIRED COURSES: MASTER OF SCIENCE IN MANAGEMENT (continued)

**Nonprofit and Association Management**

**Course Sequencing**
- NPMN 600 must be taken as the first specialization course.
- NPMN 650 is prerequisite to NPMN 655.

**Specialization Courses**
- NPMN 600 Nonprofit and Association Organizations and Issues (3)
- NPMN 610 Nonprofit and Association Law and Governance (3)
- NPMN 620 Nonprofit and Association Financial Management (3)
- NPMN 640 Marketing, Development, and Public Relations in Nonprofit Organizations and Associations (3)
- NPMN 650 Fundamentals of Association Management (3)
- NPMN 655 Outcome and Process Evaluation Management (3)
- NPMN 660 Strategic Management in Nonprofit Organizations and Associations (3)

**Procurement and Contract Management**

**Course Sequencing**
Courses should be taken in the order listed.

**Specialization Courses**
- PCMS 626 Purchasing and Materials Management (3)
- PCMS 627 Legal Aspects of Contracting (3)*
- PCMS 628 Contract Pricing and Negotiations (3)
- PCMS 629 Strategic Purchasing and Logistics (3)
- PCMS 630 Commercial Transactions in a Technological Environment: Law, Management, and Technology (3)*
- PCMS 631 Integrative Supply Chain Management (3)
- PCMS 632 Contemporary Logistics (3)

**Alternate Course Choice**
*PCMS 650 Legal Aspects of Contracting and Commercial Transactions (6) may be taken instead of PCMS 627 and 630.

**Project Management**

**Course Sequencing**
PMAN 634 (or PMAN 600) must be taken as the first course.

**Specialization Courses**
- PMAN 634 Foundations of Project Management (3)*
- PMAN 637 Project Risk Management (3)
- PMAN 638 Project Communications Management (3)
- PMAN 639 Project Quality Management (3)
- PMAN 641 Project Procurement Management (3)
- PMAN 650 Financial Management of Projects (3)
- PMAN 670 Advanced Project Methods (3)*

**Alternate Course Choice**
*PMAN 600 Project Management: Foundations and Advanced Methods (6) may be taken instead of PMAN 634 and 670.

**Public Relations**

**Course Sequencing**
- Courses should be taken in the order listed.
- Students must complete MRKT 600 and 601 (or MRKT 620) as the first course(s).
- Students must complete all courses (except MGMT 670) before taking PRPA 650.

**Specialization Courses**
- MRKT 600 Marketing Management (3)*
- MRKT 601 Legal and Ethical Issues in Global Communications (3)*
- PRPA 601 Public Relations Theory and Practice (3)
- PRPA 602 Public Relations Techniques (3)
- PRPA 610 Crisis Communication Management (3)
- PRPA 620 Global Public Relations (3)
- PRPA 650 Public Relations Campaigns (3)

**Alternate Course Choice**
*MRKT 620 Marketing Principles, Regulation, and Ethical Issues (6) may be taken instead of MRKT 600 and 601.

Course descriptions are found on pp. 69–107.
# RELATED CERTIFICATE PROGRAMS

<table>
<thead>
<tr>
<th>Program</th>
<th>Course Sequencing</th>
<th>Required Courses</th>
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<tbody>
<tr>
<td><strong>Initial Requirement</strong></td>
<td>UCP 611 Introduction to Graduate Library Research Skills (0)</td>
<td></td>
</tr>
<tr>
<td><strong>Accounting</strong></td>
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<td>ACCT 610 Financial Accounting (3)</td>
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<tr>
<td><strong>Academic Preparation</strong></td>
<td></td>
<td>ACCT 611 Management Accounting (3)</td>
</tr>
<tr>
<td><strong>Course Sequencing</strong></td>
<td></td>
<td>ACCT 612 Auditing Process (3)</td>
</tr>
<tr>
<td><strong>Required Courses</strong></td>
<td></td>
<td>ACCT 614 Accounting Information Systems (3)</td>
</tr>
<tr>
<td><strong>Financial Management in Organizations</strong></td>
<td></td>
<td>ACCT 610 is a prerequisite for all required accounting courses.</td>
</tr>
<tr>
<td><strong>Foundations of Human Resource Management</strong></td>
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<td>MGMT 615 Intercultural Communication and Leadership (3)</td>
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<tr>
<td><strong>Course Sequencing</strong></td>
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<td>HRMD 610 Issues and Practices in Human Resource Management (3)</td>
</tr>
<tr>
<td><strong>Required Courses</strong></td>
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<td>HRMD 620 Employee Relations (3)</td>
</tr>
<tr>
<td><strong>Health Care Administration</strong></td>
<td></td>
<td>HRMD 650 Organizational Development and Change (3)</td>
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<tr>
<td><strong>Homeland Security Management</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Integrative Direct Marketing</strong></td>
<td></td>
<td>MGMT 650 and MRKT 600 are required as the first courses.</td>
</tr>
<tr>
<td><strong>Course Sequencing</strong></td>
<td></td>
<td>MGMT 650 Research Methods for Managers (3)</td>
</tr>
<tr>
<td><strong>Required Courses</strong></td>
<td></td>
<td>MRKT 600 Marketing Management (3)</td>
</tr>
<tr>
<td><strong>Homeland Security Management</strong></td>
<td></td>
<td>MRKT 604 Marketing Intelligence and Research Systems (3)</td>
</tr>
<tr>
<td><strong>Integrative Supply Chain Management</strong></td>
<td></td>
<td>MRKT 606 Integrated Direct Marketing (3)</td>
</tr>
<tr>
<td><strong>Course Sequencing</strong></td>
<td></td>
<td>MGMT 650 must be completed as the first course.</td>
</tr>
<tr>
<td><strong>Required Courses</strong></td>
<td></td>
<td>MGMT 650 Research Methods for Managers (3)</td>
</tr>
<tr>
<td><strong>Course Sequencing</strong></td>
<td></td>
<td>PCMS 631 Integrative Supply Chain Management (3)</td>
</tr>
<tr>
<td><strong>Required Courses</strong></td>
<td></td>
<td>PCMS 632 Contemporary Logistics (3)</td>
</tr>
<tr>
<td><strong>Homeland Security Management</strong></td>
<td></td>
<td>PCMS 628 Contract Pricing and Negotiations (3)</td>
</tr>
</tbody>
</table>

Course descriptions are found on pp. 69–107.
### RELATED CERTIFICATE PROGRAMS (continued)

#### Leadership and Management

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Required Courses</td>
<td>MGMT 610</td>
<td>The Manager in a Technological Society</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MGMT 615</td>
<td>Intercultural Communication and Leadership</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>HRMD 650</td>
<td>Organizational Development and Change</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Nonprofit and Association Financial Management

**Course Sequencing**
- Students without recent coursework in accounting or economics are strongly advised to complete UCSP 620 and UCSP 621 before enrolling in MGMT 640 and FIN 610.
- MGMT 640 is a prerequisite to FIN 610.
- Students are encouraged to take NPMN 660 as the last course.

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Courses</td>
<td>MGMT 640</td>
<td>Financial Decision Making for Managers</td>
<td>3</td>
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<tr>
<td></td>
<td>FIN 610</td>
<td>Financial Management in Organizations</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>NPMN 620</td>
<td>Nonprofit and Association Financial Management</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>NPMN 660</td>
<td>Strategic Management in Nonprofit Organizations and Associations</td>
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</tbody>
</table>

#### Procurement and Contract Management

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Courses</td>
<td>PCMS 626</td>
<td>Purchasing and Materials Management</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PCMS 627</td>
<td>Legal Aspects of Contracting</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PCMS 628</td>
<td>Contract Pricing and Negotiations</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PCMS 629</td>
<td>Strategic Purchasing and Logistics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PCMS 630</td>
<td>Commercial Transactions in a Technological Environment: Law, Management, and Technology</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Project Management

Details are on p. 40.

#### Public Relations

**Course Sequencing**
- Students must complete MRKT 600 and 601 (or MRKT 620) as the first course(s).

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Courses</td>
<td>MRKT 600</td>
<td>Marketing Management</td>
<td>3*</td>
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<tr>
<td></td>
<td>MRKT 601</td>
<td>Legal and Ethical Issues in Global Communications</td>
<td>3*</td>
</tr>
<tr>
<td></td>
<td>PRPA 601</td>
<td>Public Relations Theory and Practice</td>
<td>3</td>
</tr>
<tr>
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<td>PRPA 602</td>
<td>Public Relations Techniques</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PRPA 610</td>
<td>Crisis Communication Management</td>
<td>3</td>
</tr>
</tbody>
</table>

**Alternate Course Choice**
*MRKT 620 Marketing Principles, Regulation, and Ethical Issues (6) may be taken instead of MRKT 600 and 601.

Course descriptions are found on pp. 69–107.
MASTER’S DEGREE AND CERTIFICATE PROGRAMS

MASTER OF SCIENCE IN TECHNOLOGY MANAGEMENT

Program Description
Technology management is a versatile field of study that prepares students to work in a wide range of careers, from e-business and homeland security to information systems and services and beyond. The Master of Science (MS) in technology management program is designed for students who wish to focus on the successful management and leadership of technology within organizations. Core courses in subjects like economics, organizational performance, and strategic management focus on a common management competency while specializations allow students to customize depth in technology toward their long-term career goals. After completing the program, students will have a broad-based core of management competency in central business functions and a deep understanding of the technologies that enable specific business capabilities.

Program Objectives
Graduates of this program will be able to

• Manage the fast pace of technological change that is vitally important to both private- and public-sector organizations.
• Manage businesses and public organizations through technology.
• Evaluate the technological basis of management activities that are essential for modern management.

Program Overview
The curriculum requires 36 credits of coursework and is divided into 15 credits of core coursework and 21 credits of coursework, including a 3-credit capstone course, from one of the program specializations.

Specializations
The MS in technology management degree program offers five specializations, each covering subject areas relevant to today’s career fields. Each specialization prepares students for one of several possible career paths, depending on the student's background and employer criteria.

Distance Education Technology
The objective of the distance education technology specialization is to train managers in the technology-related aspects of distance education program development, including setting up appropriate technology configurations, selecting tools, and managing the aspects of media integration and course design and development affected by technology. Managers are also made critically aware of the intricate relationship of globalization and communication technologies, which exert a considerable influence in reshaping distance education.

This specialization first provides a foundation in the relevant history pertaining to media and technology in distance education. It sets a framework for guiding appropriate technology choices and provides an in-depth understanding of both asynchronous and synchronous technologies.

Course descriptions are found on pp. 69–107.
E-Business
The e-business specialization examines how managers can design and operate Web sites and generally conduct e-commerce and e-business effectively. The specialization is structured to accommodate the needs of students who are specialists in information technology as well as those with little or no experience with computers. In addition to receiving a solid technology foundation, students are exposed to relevant business aspects, such as strategic planning, marketing planning, security planning, financial and economic aspects of e-business, and social, legal, and regulatory issues.

CAREER PATHS
• Technical director
• Production manager
• Technical expert/advisor/consultant
• Coordinator of online instruction
• Online course support specialist

Information Systems and Services
The information systems and services specialization examines the ways a manager can procure and use computer-based information systems to enhance decision making and organizational effectiveness. This specialization is structured to accommodate the needs of students who have little or no experience with computers as well as those with advanced computer skills. In addition to receiving a technological foundation, students are exposed to the interaction of technology, organizational behavior, strategic planning, project management, and systems analysis used to support an organization through its information systems.

CAREER PATHS
• Systems or business analyst
• Systems development manager
• Information security project or program manager
• Information security consultant
• Chief information officer
• Information security-aware general manager

Project Management
The project management specialization provides a strong theoretical and practical foundation in project management. This specialization is designed to serve managers and other professionals who wish to acquire, enhance, and certify their knowledge and skills to successfully design, integrate, develop, and manage projects. Students gain hands-on experience using various project management tools and techniques to successfully manage real-world projects of varying sizes and degrees of complexity. Additionally, students apply emerging principles and methods in the project management field.

CAREER PATHS
• Program manager
• Director
• Chief executive officer

Homeland Security Management
The homeland security management specialization prepares managers for man-made and natural threats at the community and organizational level. The curriculum prepares students to perform security risk assessments and to develop strategies to mitigate threats to people, physical facilities, and information-dependent critical infrastructure as well as to plan for and manage operational recovery. Courses also explore the evolving roles within various first responder communities regarding pre-event planning and post-event response.

CAREER PATHS
• Chief operation officer
• Facility or plant manager
• Facility security officer
• Military planner
• Federal, state, or local government emergency planner or policy maker
• Law enforcement, emergency, or medical practitioner or administrator

RECOGNITION/PROFESSIONAL CERTIFICATION
The Graduate School of Management and Technology is a Project Management Institute–Registered Educational Provider.

Course descriptions are found on pp. 69–107.
### REQUIRED COURSES: MASTER OF SCIENCE IN TECHNOLOGY MANAGEMENT

#### Initial Requirement

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>UCSP 611</td>
<td>Introduction to Graduate Library Research Skills (0)</td>
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#### Core Courses

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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>TMAN 611</td>
<td>Principles of Technology Management (3)*</td>
</tr>
<tr>
<td>TMAN 614</td>
<td>Strategic Management of Technology and Innovation (3)</td>
</tr>
<tr>
<td>TMAN 625</td>
<td>Economics and Financial Analysis for Technology Managers (3)</td>
</tr>
<tr>
<td>TMAN 632</td>
<td>Organizational Performance Management (3)</td>
</tr>
<tr>
<td>TMAN 633</td>
<td>Managing People in Technology-Based Organizations (3)*</td>
</tr>
</tbody>
</table>

#### Alternate Course Choice

- *TMAN 600 Foundations of Management and Technology (6) may be taken instead of TMAN 611 and 633.

### Distance Education Technology

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>DETT 607</td>
<td>Instructional Design and Course Development in Distance Education (3)</td>
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<td>DETC 630</td>
<td>Synchronous and Asynchronous Learning Systems in Distance Education (3)</td>
</tr>
<tr>
<td>DETC 620</td>
<td>Training and Learning with Multimedia (3)</td>
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<tr>
<td>DEPM 604</td>
<td>Leadership in Distance Education (3)</td>
</tr>
<tr>
<td>DEPM 625</td>
<td>Distance Education, Globalization, and Development (3)</td>
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<tr>
<td>IMAT 639</td>
<td>Internet Multimedia Applications (3)</td>
</tr>
<tr>
<td>OMDE 670</td>
<td>Portfolio and Project in Distance Education (3)</td>
</tr>
</tbody>
</table>

### E-Business

#### Course Sequencing

Courses must be taken in the order listed.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBUS 610</td>
<td>Introduction to E-Business (3)</td>
</tr>
<tr>
<td>EBUS 620</td>
<td>E-Marketing (3)</td>
</tr>
<tr>
<td>EBUS 630</td>
<td>Social, Legal, Ethical, and Regulatory Issues (3)</td>
</tr>
<tr>
<td>EBUS 640</td>
<td>E-Technology (3)</td>
</tr>
<tr>
<td>EBUS 650</td>
<td>E-Development and Management (3)</td>
</tr>
<tr>
<td>EBUS 660</td>
<td>E-Business Economics (3)</td>
</tr>
<tr>
<td>EBUS 670</td>
<td>E-Business Capstone (3)</td>
</tr>
</tbody>
</table>

### Homeland Security Management

#### Course Sequencing

HSMN 610 must be taken as one of the first two specialization courses.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSMN 610</td>
<td>Concepts in Homeland Security (3)</td>
</tr>
<tr>
<td>HSMN 620</td>
<td>Physical Security (3)</td>
</tr>
<tr>
<td>HSMN 630</td>
<td>Business Continuity: Disaster Recovery, Planning, and Response (3)</td>
</tr>
<tr>
<td>INFA 660</td>
<td>Security Policy, Ethics, and the Legal Environment (3)</td>
</tr>
<tr>
<td>BSAD 641</td>
<td>Biosecurity and Bioterrorism (3)</td>
</tr>
<tr>
<td>ENER 603</td>
<td>Energy Infrastructure Management (3)</td>
</tr>
<tr>
<td>HSMN 670</td>
<td>Seminar in Homeland Security (3)</td>
</tr>
</tbody>
</table>

### Information Systems and Services

#### Course Sequencing

ISAS 600 is a prerequisite to all other ISAS courses.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISAS 600</td>
<td>Information Systems for Managers (3)</td>
</tr>
<tr>
<td>ISAS 610</td>
<td>Information Systems Management and Integration (3)</td>
</tr>
<tr>
<td>ISAS 620</td>
<td>Information Systems Sourcing Management (3)</td>
</tr>
<tr>
<td>ISAS 630</td>
<td>Systems Analysis and Design (3)</td>
</tr>
<tr>
<td>ISAS 640</td>
<td>Decision Support Systems and Expert Systems (3)</td>
</tr>
<tr>
<td>ISAS 650</td>
<td>Information Technology, the CIO, and Organizational Transformation (3)</td>
</tr>
<tr>
<td>IMAT 639</td>
<td>Internet Multimedia Applications (3)</td>
</tr>
</tbody>
</table>

Course descriptions are found on pp. 69–107.
**REQUIRED COURSES: MASTER OF SCIENCE IN TECHNOLOGY MANAGEMENT (continued)**

<table>
<thead>
<tr>
<th>Specializations</th>
<th>Course Sequencing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Management</td>
<td>PMAN 634 (or PMAN 600) must be taken as the first course.</td>
</tr>
<tr>
<td></td>
<td><strong>Specialization Courses</strong></td>
</tr>
<tr>
<td></td>
<td>PMAN 634  Foundations of Project Management (3)*</td>
</tr>
<tr>
<td></td>
<td>PMAN 637  Project Risk Management (3)</td>
</tr>
<tr>
<td></td>
<td>PMAN 638  Project Communications Management (3)</td>
</tr>
<tr>
<td></td>
<td>PMAN 639  Project Quality Management (3)</td>
</tr>
<tr>
<td></td>
<td>PMAN 641  Project Procurement Management (3)</td>
</tr>
<tr>
<td></td>
<td>PMAN 650  Financial Management of Projects (3)</td>
</tr>
<tr>
<td></td>
<td>PMAN 670  Advanced Project Methods (3)*</td>
</tr>
</tbody>
</table>

*PMAN 600 Project Management: Foundations and Advanced Methods (6) may be taken instead of PMAN 634 and 670.

**RELATED CERTIFICATE PROGRAMS**

<table>
<thead>
<tr>
<th>Initial Requirement</th>
<th>Required Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Homeland Security Management</strong></td>
<td>UCSP 611  Introduction to Graduate Library Research Skills (0)</td>
</tr>
<tr>
<td>Details are on p. 39.</td>
<td></td>
</tr>
<tr>
<td><strong>Integrative Supply Chain Management</strong></td>
<td>ISAS 600  Information Systems for Managers (3)</td>
</tr>
<tr>
<td>Details are on p. 48.</td>
<td>ISAS 610  Information Systems Management and Integration (3)</td>
</tr>
<tr>
<td><strong>Project Management</strong></td>
<td>ISAS 620  Information Systems Sourcing Management (3)</td>
</tr>
<tr>
<td>Details are on p. 40.</td>
<td>ISAS 630  Systems Analysis and Design (3)</td>
</tr>
<tr>
<td><strong>Systems Analysis</strong></td>
<td>ISAS 650  Information Technology, the CIO, and Organizational Transformation (3)</td>
</tr>
<tr>
<td>Course Sequencing</td>
<td>ISAS 600 is a prerequisite for all other certificate courses.</td>
</tr>
</tbody>
</table>

Course descriptions are found on pp. 69–107.
Ever sharper competition from cyberspace and around the globe means that executives must acquire new tools and techniques to improve their effectiveness. However, the content and format of traditional graduate programs may not be sufficient for the seasoned executive who has significant management experience. Such executives want to be more effective leaders and perform better what they already do well, while acquiring new skills in change management. Therefore, the Graduate School of Management and Technology offers two Executive Programs—the Master of Business Administration degree and a Chief Information Officer certificate—that combine academic rigor with coaching in leadership development to help experienced professionals achieve their career goals.

**Admission Requirements**

In addition to meeting the standard requirements for admission to the UMUC Graduate School of Management and Technology (listed on p. 115), applicants to the Executive Programs must have a minimum of five years of business or management experience (or equivalent), and a mid- or senior-level position (or equivalent responsibility).

They must also provide with their application:

- A personal statement of professional goals and objectives
- A résumé
- Three letters of recommendation

**Program Description**

In today’s highly competitive business environment, professionals often need more than just their strong backgrounds of professional experience to truly excel. The executive program for the Master of Business Administration (MBA) is designed for midcareer and senior-level decision makers and emphasizes the development of individual leadership, team building, and decision-making capabilities. The curriculum provides a global perspective on the crucial issues facing businesses today and incorporates comprehensive leadership and cultural assessments, as well as executive team coaching. Training workshops and simulations, developed and delivered in conjunction with UMUC’s National Leadership Institute, provide experience and practice meeting leadership challenges. In the capstone project, small teams develop international strategic and operational plans for organizations looking to expand into new foreign markets. An international study trip is also required.

**Program Objectives**

- Employ critical, creative, and systems thinking to promote efficient and effective decision making and execution.
- Champion an open, ethical, inclusive multicultural organization.
- Lead organizational change by fostering innovation, building effective alliances, and integrating emerging technologies.
- Inform strategic business decisions that are applicable in any type of business enterprise, whether public, private, nonprofit, or commercial.
Program Overview
The curriculum requires 42 credits of coursework, including a capstone project to develop an international strategic and operational plan and an international study trip.

Career Paths
Depending on a student’s background and an employer’s criteria, graduates of the Executive MBA program may qualify for these career paths:

- Chief executive officer
- Chief operations officer
- Chief financial officer

Partnerships
University of Maryland University College has established academic partnerships with universities in Argentina, Belgium, Hungary, India, and China. Executive MBA students may participate with students from these universities in activities such as forums, conferences, projects, and discussions with guest speakers.

<table>
<thead>
<tr>
<th>REQUIRED COURSES: MASTER OF BUSINESS ADMINISTRATION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Initial Requirement</strong></td>
</tr>
<tr>
<td>UCSP 611 Introduction to Graduate Library Research Skills (0)</td>
</tr>
<tr>
<td><strong>Course Sequencing</strong></td>
</tr>
<tr>
<td>Courses must be taken in the order listed.</td>
</tr>
<tr>
<td><strong>Core Courses</strong></td>
</tr>
<tr>
<td>EMBA 610 Leadership for Global Opportunities (6)</td>
</tr>
<tr>
<td>EMBA 620 Strategy in the Global Environment (6)</td>
</tr>
<tr>
<td>EMBA 630 The Economics of Strategic Decision Making (6)</td>
</tr>
<tr>
<td>EMBA 640 Strategic Global Marketing (6)</td>
</tr>
<tr>
<td>EMBA 650 Managing Business Operations in a Global Environment (6)</td>
</tr>
<tr>
<td>EMBA 660 Risk and Opportunity in Global Business Development (6)*</td>
</tr>
<tr>
<td>EMBA 670 Business Development Strategy and Capstone Project (6)</td>
</tr>
</tbody>
</table>

*Includes international study trip.

Course descriptions are found on pp. 69–107.
EXECUTIVE PROGRAMS

CHIEF INFORMATION OFFICER (CIO) CERTIFICATE

Program Description
The Chief Information Officer (CIO) certificate program has been designed in partnership with the U.S. General Services Administration's CIO University to meet the needs of midcareer and senior-level government and private-sector IT professionals. The curriculum provides a senior-level executive focus on the management and leadership challenges that are faced by 21st century leaders in the rapidly changing information technology (IT) industry. Encompassing all the competencies cited in the Information Technology Management and Reform Act (Clinger-Cohen) and identified by the Federal CIO Council, the program covers all areas of management required to effectively lead the design, development, acquisition, implementation, planning, and maintenance of an organization's information technology structure. Clinger-Cohen guidelines hold that CIOs must move beyond management to leadership. Therefore, the CIO certificate program incorporates the expertise of the National Leadership Institute (described on p. 5) to provide comprehensive leadership assessments and executive team coaching to support individual leadership, team building, and decision-making capabilities.

Program Objectives
Graduates of the program will be able to
- Understand the dimensions of Clinger-Cohen and how to employ them effectively in the operation of an organization.
- Lead organizational change by fostering innovation and integrating emerging technologies.
- Build effective partnerships and high performing information technology teams.
- Lead the design, development, acquisition, implementation, planning, and maintenance of an organization's information technology structure.

Program Overview
This program requires the completion of 24 credits of specified coursework. Participants receive both a federal government and UMUC CIO certificate. Graduates of this certificate program may take an additional 12 credits of coursework from UMUC to earn a master's degree in either information technology or technology management.

Partnership
The CIO certificate is offered in partnership with the U.S. General Services Administration's CIO University.

Career Paths
- Chief information officer
- Chief technology officer
- Senior information technology staff members and planners
- Consultants in the field of information technology

Initial Requirement
to be taken within the first 6 credits of study

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>UCSP 611</td>
<td>Introduction to Graduate Library Research Skills</td>
<td>0</td>
</tr>
</tbody>
</table>

Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIOC 610</td>
<td>The Strategic Management of Technology</td>
<td>6</td>
</tr>
<tr>
<td>CIOC 620</td>
<td>Leading Change and Innovation in Technology</td>
<td>6</td>
</tr>
<tr>
<td>CIOC 630</td>
<td>Information Security and Finance</td>
<td>6</td>
</tr>
<tr>
<td>CIOC 640</td>
<td>Program Management</td>
<td>6</td>
</tr>
</tbody>
</table>

Course descriptions are found on pp. 69–107.
The Graduate School of Management and Technology offers many dual degree options, which enable students to acquire two graduate degrees for substantially fewer credits than would be required if the two degrees were earned separately. Because the two programs share and build upon core content, students generally need take no more than 18 credits of coursework in the second degree. However, both degrees must be earned within the established time limit. (Information on time limits is on p. 122.)

Students must complete all requirements for the first degree before beginning the second degree. The MBA may be earned as a first degree either through the regular format or through Executive Programs.

Please note that while some specializations (such as homeland security) may be earned within two or three different degree programs, they may only be earned within a single program as part of the second degree in a dual degree program.

### MASTER OF BUSINESS ADMINISTRATION + MASTER OF DISTANCE EDUCATION

**EITHER DEGREE MAY BE COMPLETED FIRST**

*If the Master of Business Administration is completed first, students must complete the following courses to earn the Master of Distance Education:

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>OMDE 601</td>
<td>3</td>
</tr>
<tr>
<td>OMDE 603</td>
<td>3</td>
</tr>
<tr>
<td>OMDE 610</td>
<td>3</td>
</tr>
<tr>
<td>OMDE 606</td>
<td>3</td>
</tr>
<tr>
<td>OMDE 608</td>
<td>3</td>
</tr>
<tr>
<td>DEPM 622</td>
<td>3</td>
</tr>
</tbody>
</table>

*If the Master of Distance Education is completed first, students must complete the following courses to earn the Master of Business Administration:

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMBA 603</td>
<td>6</td>
</tr>
<tr>
<td>DMBA 604</td>
<td>6</td>
</tr>
<tr>
<td>DMBA 606</td>
<td>6</td>
</tr>
</tbody>
</table>

*Students completing the Executive Program for the MBA should complete that program before pursuing a second degree. Course descriptions are found on pp. 69–107.*
**DUAL DEGREE PROGRAMS**

**MASTER OF BUSINESS ADMINISTRATION + MASTER OF INTERNATIONAL MANAGEMENT**

 Either degree may be completed first*

*If the Master of Business Administration is completed first, students must complete the following courses to earn the Master of International Management:*

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMAN 601</td>
<td>Strategic Management in a Global Environment (3)</td>
</tr>
<tr>
<td>IMAN 615</td>
<td>Strategic Investment and Partnering (3)</td>
</tr>
<tr>
<td>IMAN 625</td>
<td>International Trade and Economic Policy (3)</td>
</tr>
<tr>
<td>IMAN 635</td>
<td>Managing Country Risk (3)</td>
</tr>
<tr>
<td>FIN 640</td>
<td>Multinational Financial Management (3)</td>
</tr>
<tr>
<td>MRKT 605</td>
<td>International Marketing Management (3)</td>
</tr>
</tbody>
</table>

*If the Master of International Management is completed first, students must complete the following courses to earn the Master of Business Administration:*

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMBA 603</td>
<td>The Marketing of New Ideas (6)</td>
</tr>
<tr>
<td>DMBA 604</td>
<td>Technology and Operations Management (6)</td>
</tr>
<tr>
<td>DMBA 606</td>
<td>Organizations and the External Environment (6)</td>
</tr>
</tbody>
</table>

*Students completing the Executive Program for the MBA should complete that program before pursuing a second degree.

Course descriptions are found on pp. 69–107.

---

**MASTER OF BUSINESS ADMINISTRATION + MASTER OF SCIENCE IN BIOTECHNOLOGY**

 Either degree may be completed first*

*If the Master of Business Administration is completed first, students must complete the following courses to earn the Master of Science in biotechnology:*

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOT 640</td>
<td>Societal Issues in Biotechnology (3)</td>
</tr>
<tr>
<td>BIOT 630</td>
<td>Introduction to Bioinformatics (3)</td>
</tr>
<tr>
<td>BIOT 645</td>
<td>The Business of Biotechnology (3)</td>
</tr>
<tr>
<td>BIOT 601</td>
<td>Molecular Biology for Business Managers (3)</td>
</tr>
<tr>
<td>BTMN 638</td>
<td>Biotechnology and the Regulatory Environment (3)</td>
</tr>
<tr>
<td>BTMN 670</td>
<td>Capstone in Biotechnology (3)</td>
</tr>
</tbody>
</table>

*If the Master of Science in biotechnology is completed first, students must complete the following courses to earn the Master of Business Administration:*

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMBA 603</td>
<td>The Marketing of New Ideas (6)</td>
</tr>
<tr>
<td>DMBA 604</td>
<td>Technology and Operations Management (6)</td>
</tr>
<tr>
<td>DMBA 606</td>
<td>Organizations and the External Environment (6)</td>
</tr>
</tbody>
</table>
### Master of Science in Environmental Management

#### Required Courses
- **ENVM 646** Environmental/Energy Law and Policy Development (3)
- **ENVM 641** Environmental Auditing (3)
- **ENVM 643** Environmental Communications and Reporting (3)
- **ENVM 647** Environmental Risk Assessment (3)
- **ENVM 649** Principles of Waste Management and Pollution Control (3)
- **ENVM 650** Land and Water Resource Management (3)

#### Master of Business Administration

#### Required Courses
- **DMBA 603** The Marketing of New Ideas (6)
- **DMBA 604** Technology and Operations Management (6)
- **DMBA 606** Organizations and the External Environment (6)

---

### Master of Science in Financial Management and Information Systems

#### Required Courses
- **FIN 620** Capital Markets, Institutions, and Long-Term Financing (3)
- **FIN 630** Investment Valuation (3)
- **ISAS 610** Information Systems Management and Integration (3)
- **INFA 610** Computer Security, Software Assurance, Hardware Assurance, and Security Management (3)
- **IMAT 637** IT Acquisitions Management (3)
- **MSFS 670** Financial Management and Information Systems Capstone (3)

#### Course Sequencing
Students must complete all classes (except INFA 610) before taking MSFS 670.

#### Master of Business Administration

#### Required Courses
- **DMBA 603** The Marketing of New Ideas (6)
- **DMBA 604** Technology and Operations Management (6)
- **DMBA 606** Organizations and the External Environment (6)

---

*Students completing the Executive Program for the MBA should complete that program before pursuing a second degree.

Course descriptions are found on pp. 69–107.
DUAL DEGREE PROGRAMS

MASTER OF BUSINESS ADMINISTRATION + MASTER OF SCIENCE IN HEALTH CARE ADMINISTRATION

EITHER DEGREE MAY BE COMPLETED FIRST*

If the Master of Business Administration is completed first, students must complete the following courses to earn the Master of Science in health care administration:

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Course Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCAD 600</td>
<td>Introduction to Health Care Administration (3)</td>
</tr>
<tr>
<td>HCAD 620</td>
<td>The U.S. Health Care System (3)</td>
</tr>
<tr>
<td>HCAD 630</td>
<td>Public Health Administration (3)</td>
</tr>
<tr>
<td>HCAD 650</td>
<td>Legal Aspects of Health Care Administration (3)</td>
</tr>
<tr>
<td>HCAD 660</td>
<td>Health Care Institutional Organization and Management (3)</td>
</tr>
<tr>
<td>HCAD 670</td>
<td>Health Care Administration Capstone (3)</td>
</tr>
</tbody>
</table>

Course Sequencing: Students must complete at least 12 credits of HCAD coursework before taking HCAD 670.

If the Master of Science in health care administration is completed first, students must complete the following courses to earn the Master of Business Administration:

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Course Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMBA 603</td>
<td>The Marketing of New Ideas (6)</td>
</tr>
<tr>
<td>DMBA 604</td>
<td>Technology and Operations Management (6)</td>
</tr>
<tr>
<td>DMBA 606</td>
<td>Organizations and the External Environment (6)</td>
</tr>
</tbody>
</table>

*Students completing the Executive Program for the MBA should complete that program before pursuing a second degree.

Course descriptions are found on pp. 69–107.

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**Master of Business Administration** + **Master of Science in Management**

---

**Either degree may be completed first**

*If the Master of Business Administration is completed first, students must complete the required courses in the specialization of their choice to earn the Master of Science in management:*

### Accounting

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 610</td>
<td>Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 611</td>
<td>Management Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 612</td>
<td>Auditing Process</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 608</td>
<td>Fraud Examination and Accounting Ethics</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 614</td>
<td>Accounting Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 613</td>
<td>Federal Income Taxation</td>
<td>3</td>
</tr>
</tbody>
</table>

**Course Sequencing**

- ACCT 610 is a prerequisite for all other ACCT classes.

### Financial Management

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIN 615</td>
<td>Financial Management of Current Operations</td>
<td>3</td>
</tr>
<tr>
<td>FIN 620</td>
<td>Capital Markets, Institutions, and Long-Term Financing</td>
<td>3</td>
</tr>
<tr>
<td>FIN 630</td>
<td>Investment Valuation</td>
<td>3</td>
</tr>
<tr>
<td>FIN 645</td>
<td>Behavioral Finance</td>
<td>3</td>
</tr>
<tr>
<td>FIN 660</td>
<td>Strategic Financial Management</td>
<td>3</td>
</tr>
<tr>
<td>FIN 640</td>
<td>Multinational Financial Management</td>
<td>3</td>
</tr>
</tbody>
</table>

**Course Sequencing**

- FIN 620 and 630 must be completed before FIN 660.
- FIN 630 is a prerequisite for FIN 645.

### Health Care Administration

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCAD 610</td>
<td>Information Technology for Health Care Administration</td>
<td>3</td>
</tr>
<tr>
<td>HCAD 620</td>
<td>The U.S. Health Care System</td>
<td>3</td>
</tr>
<tr>
<td>HCAD 630</td>
<td>Public Health Administration</td>
<td>3</td>
</tr>
<tr>
<td>HCAD 640</td>
<td>Financial Management for Health Care Organizations</td>
<td>3</td>
</tr>
<tr>
<td>HCAD 650</td>
<td>Legal Aspects of Health Care Administration</td>
<td>3</td>
</tr>
<tr>
<td>HCAD 660</td>
<td>Health Care Institutional Organization and Management</td>
<td>3</td>
</tr>
</tbody>
</table>

### Human Resource Management

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRMD 610</td>
<td>Issues and Practices in Human Resources Management</td>
<td>3</td>
</tr>
<tr>
<td>HRMD 620</td>
<td>Employee Relations</td>
<td>3</td>
</tr>
<tr>
<td>HRMD 630</td>
<td>Recruitment and Selection</td>
<td>3</td>
</tr>
<tr>
<td>HRMD 640</td>
<td>Job Analysis, Assessment, and Compensation</td>
<td>3</td>
</tr>
<tr>
<td>HRMD 650</td>
<td>Organizational Development and Change</td>
<td>3</td>
</tr>
<tr>
<td>HRMD 651</td>
<td>Current Perspectives in Training and Development</td>
<td>3</td>
</tr>
</tbody>
</table>

### Marketing

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MRKT 601</td>
<td>Legal and Ethical Issues in Global Communications</td>
<td>3</td>
</tr>
<tr>
<td>MRKT 602</td>
<td>Consumer Behavior</td>
<td>3</td>
</tr>
<tr>
<td>MRKT 603</td>
<td>Brand Management</td>
<td>3</td>
</tr>
<tr>
<td>MRKT 604</td>
<td>Marketing Intelligence and Research Systems</td>
<td>3</td>
</tr>
<tr>
<td>MRKT 605</td>
<td>International Marketing Management</td>
<td>3</td>
</tr>
<tr>
<td>MRKT 606</td>
<td>Integrated Direct Marketing</td>
<td>3</td>
</tr>
</tbody>
</table>

*Students completing the Executive Program for the MBA should complete that program before pursuing a second degree.

Course descriptions are found on pp. 69–107.
### Nonprofit and Association Management

**Required Courses**
- NPMN 600  Nonprofit and Association Organizations and Issues (3)
- NPMN 610  Nonprofit and Association Law and Governance (3)
- NPMN 620  Nonprofit and Association Financial Management (3)
- NPMN 650  Fundamentals of Association Management (3)
- NPMN 655  Outcome and Process Evaluation Management (3)
- NPMN 660  Strategic Management in Nonprofit Organizations and Associations (3)

**Course Sequencing**
NPMN 650 is a prerequisite for NPMN 655.

### Procurement and Contract Management

**Required Courses**
- PCMS 626  Purchasing and Materials Management (3)
- PCMS 627  Legal Aspects of Contracting (3)
- PCMS 628  Contract Pricing and Negotiations (3)
- PCMS 629  Strategic Purchasing and Logistics (3)
- PCMS 630  Commercial Transactions in a Technological Environment: Law, Management, and Technology (3)
- PCMS 631  Integrative Supply Chain Management (3)

### Public Relations

**Required Courses**
- MRKT 601  Legal and Ethical Issues in Global Communications (3)
- PRPA 601  Public Relations Theory and Practice (3)
- PRPA 602  Public Relations Techniques (3)
- PRPA 610  Crisis Communication Management (3)
- PRPA 620  Global Public Relations (3)
- PRPA 650  Public Relations Campaigns (3)

**Course Sequencing**
Students must complete all other specialization courses before taking PRPA 650.

*If the Master of Science in management is completed first, students must complete the following courses to earn the Master of Business Administration:*

**Required Courses**
- DMBA 603  The Marketing of New Ideas (6)
- DMBA 604  Technology and Operations Management (6)
- DMBA 606  Organizations and the External Environment (6)

---

*Students completing the Executive Program for the MBA should complete that program before pursuing a second degree.
Course descriptions are found on pp. 69–107.*
**MASTER OF BUSINESS ADMINISTRATION** + **MASTER OF SCIENCE IN TECHNOLOGY MANAGEMENT**

**EITHER DEGREE MAY BE COMPLETED FIRST***

*If the Master of Business Administration is completed first, students must complete the required courses in the specialization of their choice to earn the Master of Science in technology management:*

### E-Business

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Details</th>
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<tbody>
<tr>
<td>EBUS 610</td>
<td>Introduction to E-Business (3)</td>
</tr>
<tr>
<td>EBUS 630</td>
<td>Social, Legal, Ethical, and Regulatory Issues (3)</td>
</tr>
<tr>
<td>EBUS 640</td>
<td>E-Technology (3)</td>
</tr>
<tr>
<td>EBUS 660</td>
<td>E-Business Economics (3)</td>
</tr>
<tr>
<td>EBUS 670</td>
<td>E-Business Capstone (3)</td>
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<tr>
<td>EBUS 650</td>
<td>E-Development and Management (3)</td>
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</table>

### Project Management

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Details</th>
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<tbody>
<tr>
<td>PMAN 634</td>
<td>Foundations of Project Management (3)*</td>
</tr>
<tr>
<td>PMAN 637</td>
<td>Project Risk Management (3)</td>
</tr>
<tr>
<td>PMAN 638</td>
<td>Project Communications Management (3)</td>
</tr>
<tr>
<td>PMAN 639</td>
<td>Project Quality Management (3)</td>
</tr>
<tr>
<td>PMAN 641</td>
<td>Project Procurement Management (3)</td>
</tr>
<tr>
<td>PMAN 670</td>
<td>Advanced Project Methods (3)*</td>
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</tbody>
</table>

### Alternate Course Choice

*Students may take PMAN 600 Project Management: Foundations and Advanced Methods (6) instead of PMAN 634 and 670.*

### Homeland Security Management

<table>
<thead>
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<th>Required Courses</th>
<th>Details</th>
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<tr>
<td>HSMN 610</td>
<td>Concepts in Homeland Security (3)</td>
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<tr>
<td>HSMN 620</td>
<td>Physical Security (3)</td>
</tr>
<tr>
<td>HSMN 630</td>
<td>Business Continuity: Disaster Recovery, Planning, and Response (3)</td>
</tr>
<tr>
<td>INFA 660</td>
<td>Security Policy, Ethics, and the Legal Environment (3)</td>
</tr>
<tr>
<td>BSBD 641</td>
<td>Biosecurity and Bioterrorism (3)</td>
</tr>
<tr>
<td>HSMN 670</td>
<td>Seminar in Homeland Security (3)</td>
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</table>

### Information Systems and Services

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISAS 600</td>
<td>Information Systems for Managers (3)</td>
</tr>
<tr>
<td>ISAS 610</td>
<td>Information Systems Management and Integration (3)</td>
</tr>
<tr>
<td>ISAS 620</td>
<td>Information Systems Sourcing Management (3)</td>
</tr>
<tr>
<td>ISAS 630</td>
<td>Systems Analysis and Design (3)</td>
</tr>
<tr>
<td>ISAS 640</td>
<td>Decision Support Systems and Expert Systems (3)</td>
</tr>
<tr>
<td>ISAS 650</td>
<td>Information Technology, the CIO, and Organizational Transformation (3)</td>
</tr>
</tbody>
</table>

*If the Master of Science in technology management is completed first, students must complete the following courses to earn the Master of Business Administration:*

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Details</th>
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</thead>
<tbody>
<tr>
<td>DMBA 603</td>
<td>The Marketing of New Ideas (6)</td>
</tr>
<tr>
<td>DMBA 604</td>
<td>Technology and Operations Management (6)</td>
</tr>
<tr>
<td>DMBA 606</td>
<td>Organizations and the External Environment (6)</td>
</tr>
</tbody>
</table>

---

*Students completing the Executive Program for the MBA should complete that program before pursuing a second degree.*  
Course descriptions are found on pp. 69–107.
### DUAL DEGREE PROGRAMS

#### MASTER OF DISTANCE EDUCATION + MASTER OF SCIENCE IN MANAGEMENT

**EITHER DEGREE MAY BE COMPLETED FIRST**

If the **Master of Distance Education** is completed first, students must complete the following courses to earn the **Master of Science in management**:

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MGMT 610</td>
<td>The Manager in a Technological Society (3)</td>
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</tr>
<tr>
<td></td>
<td>MGMT 615</td>
<td>Intercultural Communication and Leadership (3)</td>
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<tr>
<td></td>
<td>MGMT 640</td>
<td>Financial Decision Making for Managers (3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MGMT 650</td>
<td>Research Methods for Managers (3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>HRMD 651</td>
<td>Current Perspectives in Training and Development (3)</td>
<td></td>
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<tr>
<td></td>
<td>MGMT 670</td>
<td>Strategic Management Capstone (3)</td>
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</tr>
</tbody>
</table>

If the **Master of Science in management** is completed first, students must complete the following courses to earn the **Master of Distance Education**:

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>OMDE 601</td>
<td>Foundations of Distance Education (3)</td>
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<tr>
<td></td>
<td>OMDE 603</td>
<td>Technology in Distance Education (3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OMDE 610</td>
<td>Teaching and Learning in Online Distance Education (3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OMDE 606</td>
<td>Costs and Economics of Distance Education (3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OMDE 608</td>
<td>Learner Support in Distance Education and Training (3)</td>
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</tr>
<tr>
<td></td>
<td>DETT 621</td>
<td>Training at a Distance (3)</td>
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</tr>
</tbody>
</table>

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#### MASTER OF EDUCATION IN INSTRUCTIONAL TECHNOLOGY + MASTER OF DISTANCE EDUCATION

**THE MASTER OF EDUCATION MUST BE COMPLETED FIRST**

Master of Education graduates must then take the following courses to earn the **Master of Distance Education**:

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>OMDE 601</td>
<td>Foundations of Distance Education (3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OMDE 603</td>
<td>Technology in Distance Education (3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OMDE 610</td>
<td>Teaching and Learning in Online Distance Education (3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OMDE 606</td>
<td>Costs and Economics of Distance Education (3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OMDE 608</td>
<td>Learner Support in Distance Education and Training (3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DETT 621</td>
<td>Training at a Distance (3)</td>
<td></td>
</tr>
</tbody>
</table>

Course descriptions are found on pp. 69–107.
### Either Degree May Be Completed First

If the Master of Science in accounting and financial management is completed first, students must complete the following courses to earn the Master of Science in accounting and information technology:

<table>
<thead>
<tr>
<th>Required Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISAS 610 Information Systems Management and Integration (3)</td>
</tr>
<tr>
<td>ISAS 630 Systems Analysis and Design (3)</td>
</tr>
<tr>
<td>ISAS 650 Information Technology, the CIO, and Organizational Transformation (3)</td>
</tr>
<tr>
<td>INFA 610 Computer Security, Software Assurance, Hardware Assurance, and Security Management (3)</td>
</tr>
<tr>
<td>IMAT 637 IT Acquisitions Management (3)</td>
</tr>
<tr>
<td>MSAT 670 Accounting and Information Technology Capstone (3)</td>
</tr>
</tbody>
</table>

If the Master of Science in accounting and information technology is completed first, students must complete the following courses to earn the Master of Science in accounting and financial management:

<table>
<thead>
<tr>
<th>Required Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT 640 Financial Decision Making for Managers (3)</td>
</tr>
<tr>
<td>FIN 610 Financial Management in Organizations (3)</td>
</tr>
<tr>
<td>FIN 620 Capital Markets, Institutions, and Long-Term Financing (3)</td>
</tr>
<tr>
<td>FIN 630 Investment Valuation (3)</td>
</tr>
<tr>
<td>FIN 645 Behavioral Finance (3)</td>
</tr>
<tr>
<td>MSAF 670 Accounting and Financial Management Capstone (3)</td>
</tr>
</tbody>
</table>

Course descriptions are found on pp. 69–107.
DUAL DEGREE PROGRAMS

MASTER OF SCIENCE IN ACCOUNTING AND FINANCIAL MANAGEMENT + MASTER OF SCIENCE IN FINANCIAL MANAGEMENT AND INFORMATION SYSTEMS

EITHER DEGREE MAY BE COMPLETED FIRST

If the Master of Science in accounting and financial management is completed first, students must complete the following courses to earn the Master of Science in financial management and information systems:

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Course Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISAS 610</td>
<td>Information Systems Management and Integration (3)</td>
</tr>
<tr>
<td>ISAS 630</td>
<td>Systems Analysis and Design (3)</td>
</tr>
<tr>
<td>ISAS 650</td>
<td>Information Technology, the CIO, and Organizational Transformation (3)</td>
</tr>
<tr>
<td>INFA 610</td>
<td>Computer Security, Software Assurance, Hardware Assurance, and Security Management (3)</td>
</tr>
<tr>
<td>IMAT 637</td>
<td>IT Acquisitions Management (3)</td>
</tr>
<tr>
<td>MSFS 670</td>
<td>Financial Management and Information Systems Capstone (3)</td>
</tr>
</tbody>
</table>

Course Sequencing

Students must complete all courses (except FIN 645) before taking MSFS 670.

If the Master of Science in financial management and information systems is completed first, students must complete the following courses to earn the Master of Science in accounting and financial management:

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Course Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 610</td>
<td>Financial Accounting (3)</td>
</tr>
<tr>
<td>ACCT 608</td>
<td>Fraud Examination and Accounting Ethics (3)</td>
</tr>
<tr>
<td>ACCT 612</td>
<td>Auditing Process (3)</td>
</tr>
<tr>
<td>ACCT 613</td>
<td>Federal Income Taxation (3)</td>
</tr>
<tr>
<td>ACCT 665</td>
<td>Special Topics in Accounting (3)</td>
</tr>
<tr>
<td>MSAF 670</td>
<td>Accounting and Financial Management Capstone (3)</td>
</tr>
</tbody>
</table>

Course Sequencing

Students must complete all courses (except INFA 610) before taking MSAF 670.

Course descriptions are found on pp. 69–107.
TEACHER EDUCATION READING STRAND: 
READING COURSES IN ELEMENTARY AND SECONDARY EDUCATION

Program Description
The reading courses in elementary education (four courses) and secondary education (two courses) are designed for teachers seeking to meet Maryland certification and recertification requirements. They provide a thorough foundation in the theories, processes, and acquisition of reading needed for the teaching of reading to elementary and secondary students. All reading courses have been approved by the Maryland State Department of Education to meet the state’s reading requirements for certification and recertification.

Program Objectives
Students who take the reading courses in elementary and secondary education will be able to

• Utilize effective instructional and assessment methods and materials in the design of reading programs to meet the needs of diverse learners.

• Apply the cognitive, linguistic, social, and physiological factors involved in oral and written language development and associated strategies to support content area learning and literacy development.

• Explore a variety of techniques for integrating reading and writing across the curriculum and enhancing understanding of text and other media.

• Identify intervention strategies and ways to modify instruction that best support content area instruction and literacy development for students with exceptional learning needs.

• Implement technology and multimedia resources for effective reading instruction that facilitates the reading process.

• Use reflection, critical thinking, and research to make sound decisions with regard to evaluating and modifying materials, resources, and strategies for the effective teaching of reading.

Program Overview
The reading courses for elementary education consist of 12 credits of coursework; the reading courses for secondary education consist of 6 credits of coursework.

Career Paths
• Elementary or secondary school teacher
• Reading specialist
• Reading tutor

REQUIRED COURSES: READING COURSES IN ELEMENTARY EDUCATION

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>EDRS 620</th>
<th>Processes and Acquisitions of Reading (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EDRS 625</td>
<td>Instruction of Reading (3)</td>
</tr>
<tr>
<td></td>
<td>EDRS 630</td>
<td>Assessment for Reading Instruction (3)</td>
</tr>
<tr>
<td></td>
<td>EDRS 635</td>
<td>Materials for Reading (3)</td>
</tr>
</tbody>
</table>

REQUIRED COURSES: READING COURSES IN SECONDARY EDUCATION

<table>
<thead>
<tr>
<th>Course Sequencing</th>
<th>Secondary reading courses must be taken in order listed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Courses</td>
<td>EDRS 600 Secondary Reading I (3)</td>
</tr>
<tr>
<td></td>
<td>EDRS 605 Secondary Reading II (3)</td>
</tr>
</tbody>
</table>

Course descriptions are found on pp. 69–107.
Under conditions approved by the Maryland State Department of Education, University of Maryland University College may enter into partnership with one or more pre-K–12 school districts to offer an Alternative Teacher Preparation Program. Designed for career changers and others who hold a baccalaureate degree (or higher), the Alternative Teacher Preparation Program prepares participants for effective entry into their roles as classroom teachers, providing an accelerated route to teacher certification in Maryland.

Students interested in more information concerning current UMUC partnerships and programs should contact the Teacher Education Department at 301-985-7266.
## INDEX TO COURSE DESCRIPTIONS

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<th>Course Code</th>
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</thead>
<tbody>
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<tr>
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<tr>
<td>BIFS</td>
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<td>BIOT</td>
<td>Biotechnology Studies</td>
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<td>BSBD</td>
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<td>BTMN</td>
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<td>DETC</td>
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<td>EDTP</td>
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<td>IMAN</td>
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<td>MGMT</td>
<td>Management</td>
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<td>MSAF</td>
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<td>MSAT</td>
<td>Accounting and Information Technology</td>
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<td>MSFS</td>
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<td>NPMN</td>
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<tr>
<td>OMDE</td>
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<td>PRPA</td>
<td>Public Relations</td>
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<td>SWEN</td>
<td>Software Engineering</td>
<td>103</td>
</tr>
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<td>TLMN</td>
<td>Telecommunications Management</td>
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</tr>
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<td>TMAN</td>
<td>Technology Management</td>
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<td>UCSP</td>
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<td>XMBA</td>
<td>Business Administration—Executive</td>
<td>107</td>
</tr>
</tbody>
</table>
ACCT (Accounting)

ACCT 608 Fraud Examination and Accounting Ethics (3)
Prerequisite: ACCT 610. A study of the nature of fraud, elements of fraud, fraud prevention, fraud detection, fraud investigation, use of controls to prevent fraud, and methods of fraud resolution. Emphasis is on the employment of forensic accounting techniques to analyze what is behind the data being accounted for by the accounting system, to detect internal control weaknesses, and to map out a fraud investigation program. The role of accounting ethics is explored in detail and considered in the context of laws, regulations, and the organization’s culture.

ACCT 610 Financial Accounting (3)
Prerequisite: 15 credits of undergraduate accounting. A study of accounting theory in a strategic framework. An overview of relevant theory provides a foundation for further study. Focus is on developing skills in critical thinking and applying accounting concepts and principles. Topics include the preparation and interpretation of corporate financial statements in accordance with generally accepted accounting practices (GAAP); accounting standards and the standard setting process; the use of electronic technology in financial accounting; effective communication; professional ethics; and current issues, debates and research in accounting.

ACCT 611 Management Accounting (3)
Prerequisite: ACCT 610. An examination of the control and decision-making methodologies used by management accountants in solving strategic problems for business. Methodologies covered include break-even analysis, regression analysis, the balanced scorecard, activity-based costing/management, value chain analysis, total quality management, and performance evaluation/assessment. Business problems examined range from ethical issues to product costing.

ACCT 612 Auditing Process (3)
Prerequisite: ACCT 610. An in-depth examination of generally accepted auditing standards (GAAS), as well as standards for attestation and other services. Alternative audit models are evaluated for both their practical relevance and their theoretical justification as informed by current research and emerging information technology. The use of computer-assisted auditing techniques (CAAT) and other computer-related technology for obtaining evidence is evaluated in terms of its effectiveness and suitability in diverse audit environments. Methods of evaluating internal control are considered in light of the risks encountered in new ways of conducting business, such as e-commerce. Professional ethical and legal responsibilities, as shaped by the contemporary professional, legal, and regulatory environments, are examined as they relate to audit risk, risk assessment, and audit program planning. The use of audit reports and other services as tools to support management control and decision making are considered.

ACCT 613 Federal Income Taxation (3)
Prerequisite: ACCT 610. A case study–based, problem-oriented examination of fundamental federal tax concepts. Tax issues and controversies are explored in-depth. Emphasis is on applying tax laws, as opposed to learning individual tax rules. Methods of case analysis and research that are typically involved in tax planning and litigation are covered. Important definitions, judicially created rules, and other tax conventions are explored in detail through the study of each one’s genesis and purpose. Topics include tax issues that concern gross income, identification of the proper taxpayer, deductions, timing, income and deduction characterization, and deferral and capital gains and losses.

ACCT 614 Accounting Information Systems (3)
Prerequisite: ACCT 610. A study of the use of information systems in the accounting process, with an emphasis on computer systems and internal controls. Focus is on the analytical tools necessary to evaluate users’ accounting information needs and to design, implement, and maintain an accounting information system to support business processes and cycles. Topics include the components of contemporary accounting information systems; security and internal controls, particularly within Internet and e-commerce environments; traditional flow charts and data-flow diagrams; computer networks; theory and application of relational databases; and relational database management systems. Assignments include designing an accounting information system using a commercial database software package.
ACCT 665 Special Topics in Accounting (3)
Prerequisite: ACCT 610. A study of current topics in accounting. Discussion focuses on one of the following topics: government and nonprofit accounting (including financial accounting standards applicable to public sector and nonprofit organizations in the United States), international accounting (including multiple currencies; reporting requirements and their harmonization; and the interplay between international operations, differing cultures, and the management of the resulting risk), and strategies and tools in accounting (including current issues and strategies in accounting, integration of the various areas of accounting, and the research tools that can be used).

ACCT 670 Accounting Capstone (3)
(Formerly ACCT 615.) A systematic review of components of the CPA examination as preparation for those who will take the exam. As preparation for work in the accounting field, earlier work is synthesized in the form of an end-of-specialization capstone project.

AMBA (Business Administration)

AMBA 600 MBA Fundamentals (3)
An overview of fundamental management concepts across a broad spectrum of subject areas. Topics include the online environment and technologies used in the MBA program; academic requirements; research, writing, and analytical skills; plagiarism issues; and basic management concepts. Assignments focus on statistics and the theory of constraints. Exercises improve skills in the areas of research, writing, critical thinking, and teamwork.

AMBA 602 The Dynamics of Individuals and Groups at Work (6)
An investigation of the interplay of the nature, meaning, and value of work with individual, group, organizational, and societal outcomes. Strategies and methods for aligning individual interests and organizational needs to reach organizational goals are explored. The philosophical, legal, psychological, and structural decisions that managers and leaders must make in managing the dynamic human element at work are analyzed through readings, case analyses, exercises, presentations, and discussions. Topics include interpersonal skill development, with an emphasis on effective communication processes, to increase competence in successfully working with people.

AMBA 603 The Marketing of New Ideas (6)
A study of the processes of strategic marketing and the development of new products from the perspective of understanding customers and cultivating and nurturing customer relationships. Such increased understanding is achieved through the effective flow of knowledge resources within and external to the organization, with an emphasis on the importance of market research, customer relationship management, data mining, demand forecasting, and market planning. As a managerial process, marketing is the way in which organizations determine their best opportunities and avoid major threats in a constantly changing marketplace. The managerial philosophy of marketing puts central emphasis on the customer, but does not lose sight of the competition and the environment in which it operates. Accelerated technological change, major ethical business decisions, and increased globalization exert substantial pressure on organizations to develop and transform their goods, services, and marketing programs. Stable product design and long production runs are no longer the norm. Topics include the increasing importance of electronic commerce as it relates to the distribution, promotion, and pricing of consumer and business products. Marketing applications and the effectiveness of various e-commerce strategies in an emerging new economy are explored. In addition, the important topics of ethics and social responsibility are investigated within the context of strategic marketing management and the current business climate.

AMBA 604 Technology and Operations Management (6)
A consideration of three key areas of modern business functional management: project management, operations management, and information technology management. Effective managers need to understand the principles and techniques of management in these areas. For instance, the fast pace of product innovation and decreasing product life cycles today mandate that managers possess effective project management skills. Further, managers continually restructure business processes in order to maintain or improve operational efficiency and effectiveness, which is the heart of sound operations management. In support of this purpose and many others, managers should also be able to quickly but critically acquire, analyze, and deploy business information, which requires their ability to manage information technology, that is, automated information systems and information security.
AMBA 605 Economics of Management Decisions (6)
A study of the concept of economic decision making in a wide variety of managerial situations, including financial statement analysis, asset valuation, cost management and organizational performance. Critical thinking is applied to make connections among concepts from the disciplines of microeconomics, finance, and managerial and financial accounting. Current legal and ethical issues surrounding financial accounting, along with the valuation of both financial and business assets in a domestic and international context, are addressed. Because cost management is crucial to a company's continued competitiveness, activity-based costing is discussed. Increasingly, managers are supplementing financial information with non-financial information to best analyze the economic performance of their organizations. Toward this end, several performance measurement techniques, including economic value added, throughput accounting, and balanced scorecard, are covered.

AMBA 606 Organizations and the External Environment (6)
An overview, global in scope, of various types of business organizations and environments that shape organizational decisions. Approached from an opportunities and risk perspective, emphasis is placed on the regulatory structures, legal systems, governance models, and policy making that define the internal and external functions of business at the confluence of local, state, national, and international affairs. Major theoretical approaches and issues include critical thinking, international ethics, business sustainability, social responsibility, and the impact of economics and technology. The course functions as a session-long team project comprising group, subgroup, individual, and conference activities enhanced by Web- and media-based resources and some teleconferences. A significant shift is required in conceptual development from local and national focus to international and local thinking, and from an emphasis on individual performance to an emphasis on effective teamwork.

AMBA 607 Strategy (6)
An investigation of strategy, value creation, and value capture in different business contexts. The business environment of the 21st century is undergoing radical change. Companies now compete concurrently in domestic, global, and electronic markets. Such markets are often characterized by accelerating technological change, rising customer expectations, intense competition, and transitory competitive advantage. Added to that are demands for corporate transparency and responsibility that have lately become even more emphatic. Focus is on developing frameworks and models for understanding the rules of the game and taking appropriate action in these different, but concurrent, business contexts. An explicitly integrative approach is adopted, building on knowledge of the different functional areas of management covered in previous study. A top management perspective is also adopted because strategic thinking requires a good understanding of the interrelationships that exist within a firm and between the firm and its external environment. The seminar is divided broadly into three parts. The first deals with value creation in different contexts—namely domestic, global, and e-business. The second part explores issues related to value capture through various organizational and strategic processes. The final part provides a synthesis of the foregoing themes as an opportunity to apply these concepts, tools, and techniques in a real-life project.

AMBA 610 The Manager in Organizations and Society (6)
(Formerly AMBA 601.) Prerequisite: AMBA 600. An exploration of the responsibilities and influence that 21st-century managers have within their organizations and the global society. Essential concepts and theories that provide a foundation for the study of business administration and management—including systems thinking, critical thinking, ethical decision making and leadership, legal concepts, corporate social responsibility, and organizational theory and design—are examined.

AMBA 617 Strategic Action Planning (3)
(For students with transfer credit only.) Prerequisite: AMBA 660. An investigation of strategy, value creation, and value capture in different business contexts. Focus is on developing frameworks and models for understanding the structural characteristics of industries and how companies can achieve sustainable competitive advantage, taking appropriate action in these different, but concurrent, business contexts. An explicitly integrative approach is adopted, building on knowledge of the different functional areas of management gained through previous study.
AMBA 620 Managing People and Groups in the Global Workplace (6)
(Formerly AMBA 602.) Prerequisite: AMBA 610. An analysis of the challenges and opportunities associated with managing people in today’s dynamic and complex global marketplace. Lessons from research and practice on recruiting, developing, and retaining the talent required to build a high-performing, diverse, and competitive global workforce are examined. The development of personal, group, and cultural skills and knowledge serve as central goals. Leadership and ethical decision making are important competencies.

AMBA 630 The Economics of Management Decisions (6)
(Formerly AMBA 605.) Prerequisite: AMBA 620. Seminar applying the concepts of economic decision making to a wide variety of managerial situations, including financial statement analysis; asset valuation; budgeting; cost management; and performance evaluation of organizations, organizational units, products, and managers. The student must apply critical thinking skills to make connections among concepts from the disciplines of microeconomics, finance, managerial accounting, and financial accounting. The course addresses the current legal and ethical issues surrounding financial accounting, along with the valuation of tangible, financial, and intangible assets in a domestic and global context. Because cost management is crucial to a company’s continued competitiveness, activity-based costing is discussed. Increasingly, managers are supplementing financial information with nonfinancial information to better analyze the economic performance of their organizations. Toward this end, several performance measurement techniques, including the balanced scorecard are covered.

AMBA 640 Managing Projects, Operations, and Information Systems (6)
(Formerly AMBA 604.) Prerequisite: AMBA 630. A study of project management, operations management, and information technology management—three key areas of modern business functional management. A guide to the project management body of knowledge is provided. Topics include how the dos and don’ts of managing a project, several world-class operations management techniques (such as Six Sigma), and industry best practices in operational efficiency and effectiveness. The mission, goals, and importance of information systems management are assessed, using the student’s own work organization as a model. Assignments include the development of an international information systems management plan.

AMBA 650 Marketing Management and Innovation (6)
(Formerly AMBA 603.) Prerequisite: AMBA 640. An exploration of the essentials of marketing management: setting marketing goals for an organization with consideration of internal resources and marketing opportunities, planning and executing activities to meet these goals, and measuring progress toward their achievement. Focus is on the concept of innovation in business, including the introduction of new market offerings and the use of new technologies, strategies, and tactics for achieving marketing objectives. An integrative approach combines discussions on theory of marketing management with industry analysis and practical implications. Assignments include the design and marketing of innovative products, analysis of the application of modern marketing strategies and tactics using examples from participants’ organizations, and practicing a holistic approach to marketing management.

AMBA 660 Managing Global Business (6)
(Formerly AMBA 606.) Prerequisite: AMBA 650. A global overview of various types of business organizations and environments that shape organizational decisions. Emphasis is on the regulatory structures, legal systems, governance models, and policy making that define the internal and external functions of business at the confluence of local, state, national, and international affairs. Topics include critical thinking, international ethics, business sustainability, social responsibility, and the impact of economics and technology. A term-long team project comprises group, subgroup, individual, and conference activities enhanced by Web- and media-based resources and some teleconferences.

AMBA 670 Managing Strategy in the Global Marketplace (6)
(Formerly AMBA 607.) Prerequisite: AMBA 660. An investigation of strategy, value creation, and value capture in different business contexts. Currently, companies compete simultaneously in domestic, global, and electronic markets. Focus is on developing frameworks and models for understanding the structural characteristics of industries and how companies can achieve sustainable competitive advantage, taking appropriate action in these different, but concurrent, business contexts. An explicitly integrative approach is adopted, building on knowledge of the different functional areas of management gained through previous study.
**BIFS (Bioinformatics)**

**BIFS 613 Statistical Processes for Biotechnology (3)**  
(Formerly BIOT 613.) Prerequisite: Knowledge of basic statistics. A study of statistical tools—such as Bayesian statistics, Markov processes, and information theoretic indices—and how they can be used to analyze sequence homology, the presence of motifs in sequences, gene expression, and gene regulation. Topics include information content, mutual information, long-range correlation, repeats, Fourier analysis, and linguistic methods.

**BIFS 614 Data Structures and Algorithms (3)**  
(Formerly CSMN 614.) An introduction to the definitions, implementations, and applications of the most basic data structures used in computer science, including abstract data types. Basic formalism and concepts used in algorithm design and the analysis of algorithms are also introduced. The relative efficiency of the algorithms studied is estimated by informal application of these concepts. Algorithms and data structures discussed include those for sorting, searching, solving graph problems, and dynamic programming.

**BIFS 617 Advanced Bioinformatics (3)**  
(Formerly BIOT 617.) An overview of the basic programming tools for performing bioinformatic analyses in both the UNIX and MS DOS/Window environments. Focus is on the use of Perl and BioPerl as the basic programming tools. Basic programming skills are developed and practiced on such problems as codon usage/bias, open reading frame, CpG islands detection, and gene identification.

**BIFS 618 Java for Biotechnology Applications (3)**  
A study of basic concepts in Java and object-oriented programming in bioinformatics application development. Emphasis is on Web-based, graphical, and database-driven application design. Review covers the function and design of some Java-based bioinformatics tools. Some commonly used libraries in the BioJava project are introduced, and developments of reusable modular-application objects are examined. Basic problem-solving skills in the field of biotechnology using Java programming are developed through practical projects.

**BIFS 619 Gene Expression Data Analysis (3)**  
A study of high-throughput technologies for transcriptome and genomic aberration profiling. Topics include statistical theories, algorithms and data analysis tools for microarray experiments, array comparative genome hybridization, SNP array experiments, and supervised and unsupervised machine learning technologies for class discovery and classifier identifications. Practice is provided in the pre-process of empirical gene expression profiling and the postprocess of microarray data analysis for identifying differentially regulated genes related to biological functions. Several legacy databases and data integration strategies in gene expression profiling are explored through data mining and functional annotation of interesting genes; statistical principles and theories are illustrated.

**BIOT (Biotechnology Studies)**

**BIOT 601 Molecular Biology for Business Managers (3)**  
A thorough grounding in the fundamentals of biology, including a broad review of the life sciences with emphasis on molecular biology. Topics include the basic concepts and processes of cell biology, molecular biology, and immunology. The components of a cell, the processes occurring in a single cell, and the functioning of a multi-cellular organism are explained. Discussion also covers the use of model organisms to understand basic and applied biology.

**BIOT 630 Introduction to Bioinformatics (3)**  
(Formerly BIOT 610.) An introduction to bioinformatics. Emphasis is on the interpretation of data. Topics include new, sophisticated DNA, RNA, and protein sequence analyses and pattern recognition and DNA computing, as well as more traditional mathematical modeling (using Bayesian probability and basic algorithms, machine learning and neural networks, and Markov models and dynamic programming). Discussion also covers the analysis of tridimensional structures, phylogenetic relationships, and genomic and proteomic data.

**BIOT 640 Societal Issues in Biotechnology (3)**  
An examination of current societal issues in biotechnology from several perspectives. Topics include the commercialization of biotechnology; biohazards; managerial views of legal issues and bio-ethics; the need for public scrutiny; environmental and cultural issues; and the role of governmental regulatory agencies in researching, developing, and commercializing biotechnology. An overview of the early history and modern developments of biotechnology is provided.
**BIOT 643 Techniques of Biotechnology (3)**
(Formerly BTMN 643.) A comprehensive review of current techniques in biotechnology research and applications. The development and use of some of the techniques are placed in historical context. Discussion covers techniques used in genomics, transcriptomics, and proteomics and the applications of these techniques. Current plant and animal transformation methods are explained. High throughput technologies, including sequencing, real-time RT-PCR, SAGE, and microarrays, are also explored. Topics also include therapeutic applications of biotechnology, such as gene therapy, stem cell technology, and RNA interference. Emerging technologies in this field are introduced.

**BIOT 645 The Business of Biotechnology (3)**
(Formerly BTMN 645.) An introduction to the range of businesses associated with biotechnology, including medical procedures, self-testing procedures, pharmaceuticals, reagents, agricultural, environmental bioremediation, energy production, material and mineral recovery, veterinary medicine, and sensors. Discussion covers various alliances and funding sources, as well as global and international issues.

**BSBD (Biosecurity and Biodefense)**

**BSBD 640 Agents of Bioterrorism (3)**
An examination of the probable weapons of biowarfare, including biological, chemical, and nuclear weapons, from several perspectives. Topics include their mechanism of action, biological impact, detection and recognition, epidemiology, and treatment. Their potential dangers and effectiveness are evaluated, and strategies for defense against attacks by such weapons are investigated. Discussion covers the bioethical challenges of anti-bioterror research.

**BSBD 641 Biosecurity and Bioterrorism (3)**
(Formerly BIOT 681.) A review of bioterrorism, biosecurity, and government biodefense strategy, including the history and science of biological agents in agriculture and society. Discussion covers surveillance; public health preparedness; response; and recovery at the community, state, and federal government levels. Various aspects of the law, including the Posse Comitatus Act and federal and state quarantine powers, are introduced. The mental health consequences of bioterrorism are also discussed. A case study of a hypothetical biological attack is analyzed in detail.

**BSBD 642 Advanced Biosecurity and Bioterrorism (3)**
(Formerly BIOT 683.) Prerequisite: BIOT 681 or BSBD 641. A thorough examination of special and advanced topics in bioterrorism and biosecurity issues. Topics include the hidden biological warfare programs of the 20th century; advances in biotechnology and molecular microbiology and the dilemma of dual use research; domestic and foreign terrorist groups, including rogue states; state-of-the-art microbial forensics; ethics and civil rights; and current trends in policy development, consequence management, and public health responses to new threats to homeland security. Discussion also addresses special topics of the students’ choice. Future challenges in biosecurity are also discussed as part of a comprehensive bioterrorism exercise and the analysis of case studies of hypothetical threats.

**BTMN (Biotechnology Management)**

**BTMN 632 Commercializing Biotechnology in Early-Stage Ventures (3)**
(Formerly BIOT 641.) An overview of the methods for planning and organizing biotechnology ventures. The elements of a business plan are considered, as are methods for assessing various needs, such as capital, personnel, technology, and marketing. Emphasis is on approaches to marketing technology and developing joint ventures. The advantages and disadvantages of forming international ventures are weighed. Discussion also covers the importance of maintaining relations with external constituents and the need for managing public awareness.

**BTMN 634 Selection and Evaluation of Biotechnology Projects (3)**
(Formerly BIOT 642.) A study of the applications of methodologies of technology forecasting, technology assessment, project management, and data auditing to the selection and evaluation of biotechnology projects. The underlying rationale, principles, procedures, and cost effectiveness of data auditing are examined. A systems approach to performance evaluation is presented. Emphasis is on managing the safety aspects of biotechnology.

**BTMN 636 Biotechnology and the Regulatory Environment (3)**
(Formerly BIOT 644.) A comprehensive review of the role of regulation in biotechnology products and services development and commercialization. Emphasis is on the roles of the federal government, state government agencies, international bodies, and professional groups, especially the regulatory roles of the U.S. Environmental Protection Agency, the U.S. Department of Agriculture, and the Food and Drug Administration. Discussion covers human subject protection, good laboratory practices, and good manufacturing practices.
BTMN 670 Capstone in Biotechnology (3)
(Formerly BIOT 671.) Prerequisite: Completion of 27 credits of program coursework. The application of knowledge gained from previous study to real-world business, technical, and ethical issues. Topics include entrepreneurship and new venture creation, progress in biotechnology and prediction of future trends, and ethical development and management. Discussion also covers professional goals and an action plan to put knowledge and experience gained in the program to use. Focus is on demonstrating analytical, communication, and leadership skills through case analysis of promising technologies and teamwork through group development of a strategic product development plan for a start-up biotechnology venture.

CIOC (Information Technology—Leadership)

CIOC 610 The Strategic Management of Technology (6)
A study of how technology, especially information technology, can be used as an essential component of the global strategy of an enterprise. Emphasis is on linking technology policy with corporate strategy and identifying technology options that will ensure the most effective execution of organizational strategy. Electronic commerce is examined as a strategic technology application. Topics also include external and internal strategic analysis, technology forecasting, benchmarking, corporate intelligence, knowledge management, and planning and control strategies. Strategic technology planning is examined from a historical perspective; concepts essential to technology security and information assurance are introduced.

CIOC 620 Leading Change and Innovation in Technology (6)
Prerequisite: CIOC 610. Analysis of the role the chief information or technology officer in leading the new fast-paced, information age organization. Practical study of leadership provides the foundation for the application of decision-making strategies, systems thinking, teamwork, and knowledge management and the allocation of human capital within an intercultural framework. Readings, conferences, exercises, case studies, and simulations provide an introduction to research in cognitive weaknesses and bias in management and decision making. Leading-edge thought in innovation and the process of change is explored. Characteristics of the high-performing organization within the technology function are appraised. The interaction of people, processes, and technology is a cross-cutting theme.

CIOC 630 Information Security and Finance (6)
Prerequisite: CIOC 620. A critical analysis of risk assessment and security within cyberspace and technology. Focus is on the people, processes, and technology used in securing an information infrastructure. A risk-based framework involving threats, vulnerabilities, and countermeasures for the evaluation of information security needs is highlighted. Discussion covers the Sarbanes-Oxley and Federal Information Security Management Acts and their costs, as well as the practical financial management skills of the technology officer: general accounting, capital planning, asset and contract management, and activity-based costing. Exercises and assignments address the practical implications of an integrative strategy focus on concepts of total cost of ownership, balanced scorecard, and performance measurement.

CIOC 640 Program Management (6)
Prerequisite: CIOC 630. A study of the concepts, processes, and theory of program and project management (including the coordinated strategic management of interdependent projects and the tactical application of knowledge, skills, tools, and techniques to project activities to meet project requirements), as well as their organizational application within program management offices. Various programs, program offices, projects, and executive roles within an organization are assessed. Discussion covers the ability of the executive to analyze program and program office issues and the relationship of the program to the strategic goals of the organization. Both the legal and ethical ramifications of program and project management are also examined. Emphasis is on acquiring skills in developing effective outcome measures for programs and projects and understanding the implications of program and project management on the information needs of internal managers. Topics also include the mechanisms necessary to effectively manage both internal and external stakeholders and forces. Assignments include developing a management analysis of the impact of the growth of new products/services within a functional organization and the effect of programs and projects on human resources in the selection and establishment of effective teams.
COMM (Communication Studies)

COMM 600 Academic Writing for Graduate Students (3)
The development of the writing and critical-thinking skills needed for effective academic writing. Emphasis is on developing well-organized, well-supported, and clear arguments; demonstrating the appropriate use of sources; and refining grammar and mechanics. Discussion covers the writing process, including planning, drafting, revising, and completing a final project that demonstrates advanced writing and critical-thinking skills.

DBST (Database Systems Technology)

DBST 651 Relational Database Systems (3)
(Formerly CSMN 661.) An introduction to relational databases, one of the most pervasive technologies today. Presentation covers fundamental concepts necessary for the design, use, and implementation of relational database systems. Focus is on basic concepts of database modeling and design, the languages and facilities provided by database management systems, and techniques for implementing relational database systems. Topics include implementation concepts and techniques for database design, query optimization, concurrency control, recovery, and integrity. A foundation for managing databases in important environments is provided. Assignments require use of a remote access laboratory.

DBST 652 Advanced Relational/Object-Relational Database Systems (3)
(Formerly CSMN 662.) Prerequisite: CSMN 661 or DBST 651. A continuation of the study of relational database systems, exploring advanced concepts. Topics include logical design, physical design, performance, architecture, data distribution, and data sharing in relational databases. The concepts of object-relational design and implementation are introduced and developed. Assignments require the use of a remote access laboratory.

DBST 663 Distributed Database Management Systems (3)
(Formerly CSMN 663.) Prerequisite: CSMN 661 or DBST 651. An introduction to the development of distributed database management, focusing on concepts and technical issues. Survey covers distributed database management systems includes architecture, distributed database design, query processing and optimization, distributed transaction management and concurrency control, distributed and heterogeneous object management systems, and database inoperability.

DBST 665 Data Warehouse Technologies (3)
(Formerly CSMN 665.) Prerequisite: CSMN 661 or DBST 651. An introduction to the concepts needed for successfully designing and implementing a data warehouse. Topics include data model approaches such as the star schema and denormalization, loading the warehouse, performance challenges, and other concepts unique to the warehouse environment. Assignments require use of a remote access laboratory.

DBST 667 Data Mining (3)
(Formerly CSMN 667.) Prerequisite: CSMN 661 or DBST 651. An overview of the data mining component of the knowledge discovery process. Data mining applications are introduced, and algorithms and techniques useful for solving different problems are identified. Topics include the application of well-known statistical, machine learning, and database algorithms, including decision trees, similarity measures, regression, Bayes theorem, nearest neighbor, neural networks and genetic algorithms. Discussion also covers researching data mining applications and integrating data mining with data warehouses.

DBST 668 Database Security (3)
(Formerly: CSMN 668.) Prerequisite: CSMN 661 or DBST 651. An overview of both the theory of and applications for providing effective security in database management systems. Topics include conceptual frameworks for discretionary and mandatory access control, data integrity, availability and performance, secure database design, data aggregation, data inference, secure concurrency control, and secure transactions processing. Models for multilevel secure databases for both relational and object-relational databases are analyzed. Assignments focus on database security concepts and require use of a remote access laboratory.

DBST 670 Database Systems Administration (3)
(Formerly CSMN 666.) Prerequisite: CSMN 661 or DBST 651. An introduction to the knowledge, skills, and tools needed to successfully administer operational database systems. The conceptual and operational tools for analysis and resolution of problems such as performance, recovery, design, and technical issues are provided. Tools used to assist in the administration process are also included.
COURSE DESCRIPTIONS

DEPM (Distance Education Policy and Management)

DEPM 604 Leadership in Distance Education (3)
(Formerly OMDE 604.) An introduction to the organization, management, and administration of distance education systems. Topics include management theory, organizational behavior, leadership roles, human resource management, employee relations, the impact of information technology, faculty/staff development, interinstitutional collaboration, planning, policy, and change. Both education and training environments, as well as the knowledge and skills necessary to function effectively in either type of organizational setting, are explored.

DEPM 609 Distance Education Systems (3)
(Formerly OMDE 609.) Prerequisites: OMDE 601, OMDE 603, DETT 607 (or OMDE 607), and OMDE 608. An introduction to frameworks for analyzing the nature of distance education from a functionalist, interpretive, or emancipatory systems approach. Appropriate diagramming techniques are used as a means to examine the organization and management of distance education systems.

DEPM 622 The Business of Distance Education (3)
(Formerly OMDE 622.) An examination of the highly competitive global business environment for distance education and training. Topics include the supply and demand of education services in emerging and existing markets, the competitive positioning of organizations, and increasing reliance on collaborations. Emphasis is on the skills distance education managers need in planning and developing programs, products, and services that are targeted to specific markets and cost-effective.

DEPM 625 Distance Education, Globalization, and Development (3)
(Formerly OMDE 625.) A study of distance education from an international perspective, highlighting developing countries. Processes are explored through concrete case studies in the areas of higher education and internationalization; teacher education, school networks, and mobile learning; alternative routes to schooling; nonformal education, community radio, telecenters, and radio browsing; and vocational education and training. Topics also cover national and international policies on distance education, including the role of the state; international organizations (such as the World Bank or UNESCO) and their policies (e.g. the Millennium Development Goals); telecommunication infrastructure; transnational corporations and the commercialization of education; and the World Trade Organization (WTO) and the General Agreement on Trade in Services (GATS).

DETC (Distance Education Technology)

DETC 620 Training and Learning with Multimedia (3)
(Formerly OMDE 620. Developed by Joachim Hasebrook of Germany.) An examination of the use of digital media in a variety of educational settings to identify properties, strengths, and weaknesses of multimedia in different learning contexts. Basic psychological processes of perception, understanding, and learning are introduced. Focus is on multimedia and instructional design for online learning systems, such as Web-based training. Hands-on experiences with several multimedia and online learning and information systems are provided. Topics also include groupware and collaborative learning technologies, intelligent systems, instructional simulations, and virtual reality systems.

DETC 630 Synchronous and Asynchronous Learning Systems in Distance Education (3)
An examination of synchronous (real-time) and asynchronous (non-real-time) tools and technologies used in online education. Topics include synchronous functions such as text chat and audio/video conferencing and asynchronous functions such as e-mail, threaded Web discussions, blogs, and wikis. Each communication model is examined critically in both a research and applied context. Review also covers how synchronous and asynchronous modes of communication are incorporated in learning management systems.

DETT (Distance Education in Teaching and Training)

DETT 607 Instructional Design and Course Development in Distance Education (3)
(Formerly OMDE 607.) An examination of the instructional design process, its history and place in today's course development efforts, and the use of instructional design components in practice. Emphasis is on the nature of learning and the requirements for effective instruction. The theoretical underpinnings of learning are explored and applied to the design of a prototype classroom. Management issues surrounding course and curriculum development efforts are discussed, and a comprehensive curriculum management plan is developed.
DETT 611 Library and Intellectual Property Issues in Distance Education (3)
(Formerly OMDE 611.) An overview of the development and delivery of digital resources for distance education. Discussion covers the intellectual property issues affecting the use of copyrighted works in distance education, developing and delivering library resources online to a faculty and student population, and the future of digital information delivery and the impact of digital rights management (DRM) technologies and social networking.

DETT 615 Assessment and Quality Assurance in Distance Education (3)
A study of quality assessment and quality assurance in distance education within the context of quality in education in general. Discussion covers the diverse meanings of quality in different contexts, the multidimensional nature of the concept of quality, personal reflections on quality, and the importance of quality as an emerging leitmotif in the educational debate. A variety of methodological approaches (including quality assessment techniques, quality evaluation, quality criteria and guidelines, quality benchmarks, and quality management approaches) are introduced and applied to distance education. Topics also include the connection between accreditation and quality. Quality models are applied to distance education, and case studies are used to reveal good practice in quality assessment and quality assurance in distance education today.

DETT 621 Training at a Distance (3)
(Formerly OMDE 621.) An examination of the role of distance training in business, nonprofit, and government organizations. A wide variety of issues, problems, and solutions in Web-based training are explored. Topics include the economics of distance training, distance technology in the business organization, synchronous versus asynchronous interactive tools, collaborative and problem-solving tools, authoring tools, insourcing versus outsourcing, and the role of multimedia in distance training. Emphasis is on the concept of the corporate virtual university and its design and operation.

DMBA (Business Administration—Dual Degree)

DMBA 603 The Marketing of New Ideas (6)
(Formerly AMBA 603D.) Prerequisite: Completion of all requirements for the first degree of an approved dual-degree program. An exploration of the essentials of marketing management: setting marketing goals for an organization with regard to internal resources and marketing opportunities, planning and executing activities to meet these goals, and measuring progress toward their achievement. Focus is on the concept of innovation in business, including the introduction of new market offerings and the use of new technologies, strategies, and tactics for achieving marketing objectives. An integrative approach combines discussions on theory of marketing management with industry analysis and practical implications. Assignments include the design and marketing of innovative products, analysis of the application of modern marketing strategies and tactics using examples from participants’ organizations, and practicing a holistic approach to marketing management.

DMBA 604 Technology and Operations Management (6)
(Formerly AMBA 604D.) Prerequisite: DMBA 603. A study of project management, operations management, and information technology management—three key areas of modern business functional management. A guide to the project management body of knowledge is provided. Topics include how the dos and don’ts of managing a project, several world-class operations management techniques (such as Six Sigma), and industry best practices in operational efficiency and effectiveness. The mission, goals, and importance of information systems management are assessed, using the student’s own work organization as a model. Assignments include the development of an international information systems management plan.

DMBA 606 Organizations and the External Environment (6)
(Formerly AMBA 606D.) Prerequisite: DMBA 604. A global overview of various types of business organizations and environments that shape organizational decisions. Emphasis is on the regulatory structures, legal systems, governance models, and policy making that define the internal and external functions of business at the confluence of local, state, national, and international affairs. Topics include critical thinking, international ethics, business sustainability, social responsibility, and the impact of economics and technology. A session-long team project comprises group, subgroup, individual, and conference activities enhanced by Web- and media-based resources and some teleconferences.
DMGT (Doctoral Studies in Management)

DMGT 600 Foundations of Doctoral Studies (3)
An overview of doctoral studies in management. Topics include the purpose and context of the doctoral degree program; the role and value of research and statistical analysis in the practice of management; and key concepts in management, leadership, change, and organizational theory. Degree requirements and the dissertation process are explored. Exercises, including the development of an individual journal, are used to evaluate skills in critical thinking, argumentation, and writing expression.

DMGT 800 Foundations of Management Theory and Strategic Thinking (6)
A comprehensive foundation in the history of management and the structure and function of organizations. A new way of understanding and managing operational and strategic issues in public and private organizations in the face of accelerating social, economic, and technological changes is provided. Topics include organizational theory, strategic thinking and strategic management, theories of decision making, leadership, organizational culture, and management in a postindustrial society. Problem-solving, application, and evaluation skills are used to analyze the theories and practices of current and emerging organizational challenges and opportunities. The goal is to be able to critically assess the ideas of others and defend one's own ideas through the application of scholarship.

DMGT 810 Leadership, Enterprise Change, and Virtual Management (6)
A study of leadership—not just for survival but for sustainability—in environments where external pressure for change is the dominant feature. Discussion examines change and leadership issues in varied industries, as well as one's own organization, by identifying and analyzing theories and concepts, assessing the applicability of classic works and current perspectives, testing ideas using case studies, and developing various scenarios and strategies. Topics include the knowledge and abilities needed for managing change, such as improvisation and reinvention; the roles and skills needed at all levels for leading in new organizational models involving virtual teams; and the impact of change (particularly frequent change) on individuals and organizations. The goal is to recognize the link between leadership, change, and organizational resilience and apply the lessons.

DMGT 820 International Finance and Global Operation (6)
An examination of four perspectives on strategic management within an international and global context: strategy and the competencies that are required for managers to function effectively, trade and financial issues, the political and legal context of decision making when many nation states are in play, and issues arising from cultural differences and their effect on the management of firms operating transnationally. Topics include the economic and financial forces affecting the organization in its internal and external environment and appropriate responses to these forces in a global context. Discussion also covers the forces and values shaping these four perspectives in terms of the firm and its industry and how these forces and values may shape the working strategy of a particular firm viewed globally and within the context of an assigned country.

DMGT 830 Research Methods and Design (6)
An applied study of how to plan, conduct, interpret, and critique both quantitative and qualitative research. Methods are grounded in the philosophy of science to provide a solid foundation that will support the identification of researchable questions, as well as the selection and application of a methodology to a dissertation topic. Methodologies studied include organizational ethnography, action research, content analysis, and survey research. Assignments include short analyses representative of the different methodological traditions.

DMGT 840 Enterprise Continuity and Information Assurance (6)
An exploration of enterprise continuity as an integral, essential, and dynamic objective for all organizations—governmental, economic, academic, and social—serving to identify and define the organization, establish its boundaries, enable it to function effectively both internally and externally, and adapt efficiently to change, even sudden and catastrophic change. Discussion covers the role of information assurance (IA) as an inherent and indispensable component of an organization’s risk management program.

DMGT 850 Innovation and Sustainable Development (6)
A study of how technological innovation drives the long-term competitiveness of global organizations. The objective is to acquire skills in developing conceptual frameworks for managing sustainable organizational growth in both private and public sectors. Focus is on critically evaluating the actors and factors for technological innovation and developing concepts for managing technological innovations to improve the creation and delivery of new goods and services in a productivity-based international competitive environment. Discussion covers issues related to technology resources, technological capacities, capabilities and competencies, and technology strategies for sustained competitive advantage in the global marketplace. Decision-making roadmaps are developed and applied to ensure that technological and socioeconomic/ethical/legal considerations are integrated for desired results.
DMGT 860 Postdoctoral Seminar and Practicum in Teaching (3)
(Open to UMUC Doctor of Management graduates and to graduates of other terminal degree programs by permission. Designed for those interested in teaching at the college level.) An interactive study and application of fundamental theories, concepts, methods, and strategies for successfully teaching adult learners in postsecondary classrooms, both online and on-site. Focus is on weaving discipline content with teaching methods that support learning in a discipline. Activities include observing classes, applying model practices, and designing and implementing course components.

DMGT 890 Dissertation Theory Paper (4)
The identification and refinement of the dissertation topic. Focus is on identifying research questions relevant to the chosen topic, conducting a review of the literature on that topic, and developing a conceptual model and associated hypotheses.

DMGT 891 Dissertation Empirical Paper (4)
The selection of the dissertation’s research methodology to evaluate the conceptual model and hypotheses. Focus is on identifying appropriate sources of data, collecting and analyzing the data in the context of the chosen methodology, and drawing conclusions regarding the conceptual model and associated hypotheses.

DMGT 892 Dissertation Futurist Paper (4)
A discussion of the future impact of the dissertation research on the management of organizations. The chosen area of specialty is examined more broadly in the context of such organizational issues as innovation, sustainable development, information assurance, and enterprise continuity.

DMGT 893 Dissertation Submission (3)
The completion and defense of the dissertation before the dissertation advisor, the cohort advisor, and the assigned faculty member.

DMGT 899 Continuing Registration (1)
Continuing refinement of the dissertation to prepare for final submission and defense.

EBUS (E-Business)

EBUS 610 Introduction to E-Business (3)
(Formerly ECOM 610.) An overview of the managerial, strategic, and technical aspects of e-commerce functions, processes, and interactions. Topics include an introduction to the economics of information and information products; definitions of e-commerce retailing, e-tailing, and portals; a brief history of e-commerce; e-commerce business models; the roles of e-supply chains, corporate portals, and public business-to-business exchanges; e-support services, auctions, and e-commerce security issues and processes; the impact of e-commerce on organizational strategy and industry structure; in-depth assessment of successful e-commerce strategies; social, ethical, and other emerging issues related to e-commerce; and innovative e-commerce systems. Overviews of the technologies that enable e-commerce, including telecommunications technology trends, portals and search engines, Web site design and management, electronic payment systems, security, e-publishing and digital download features, and mobile commerce and pervasive computing, are presented.

EBUS 620 E-Marketing (3)
(Formerly ECOM 620.) An exploration of e-marketing approaches, research methods, and technologies, as well as 21st century advertising strategies used online and offline by organizations, corporations, and innovators worldwide. Focus is on analysis and creative development of effective global marketing strategies using the Web—one of the most significant forces to affect marketing since the emergence of mass media. Topics include understanding demographic research strategies, comparing international Web site e-marketing features, attracting and managing Web site traffic, understanding effective online business marketing strategies, and developing a final e-marketing plan that addresses the components of market research and online/offline advertising to “drive traffic” to a Web site.

EBUS 630 Social, Legal, Ethical, and Regulatory Issues (3)
(Formerly ECOM 670.) A study of the protection of intellectual property on electronic networks through trademarks, copyrights, and patents. Privacy and liability issues are examined in areas that include the handling of e-mail, the electronic dissemination of data, and the regulatory requirements for the safeguarding of confidentiality of information. Society’s responsibility to provide universal availability of Web-based technologies is considered, and an ethical framework for the development and implementation of e-commerce applications is developed.
EBUS 640 E-Technology (3)  
(Formerly ECOM 640.) A study of the broad range of online technologies currently available and in development, designed to develop understanding of how information security, e-business, and networking technologies interrelate. Topics include networking and internetworking basics, wireless technologies, e-business integration, Internet infrastructure providers, and e-business network, encryption, and Web site security. Focus is on integrating cutting-edge technology with tactical and strategic e-commerce skills. Discussion covers security, networking, and communications, to wireless advances and various development tools. Examples of how major advances in computer technology, networking capabilities, and Web-enabled applications and wide area networks have placed data, security, and privacy at risk are presented. Effective managerial approaches toward understanding and dealing with current and future challenges of technology are evaluated.

EBUS 650 E-Development and Management (3)  
(Formerly ECOM 680.) An examination of application software for business-to-business and business-to-consumer e-commerce. Topics include several fundamental e-commerce application software tools, including programming languages (e.g. Java, Perl/ cgi-bin), search engines, and Web authoring tools (e.g. HTML, HTTP, and XML). Transaction processing software tools, including intelligent agents, are also explored. Review covers business-to-business transaction exchange methods, including Electronic Data Interchange (EDI) and Electronic Funds Transfer (EFT).

EBUS 660 E-Business Economics (3)  
(Formerly ECOM 660.) A study of the economics of online business. Focus is on evaluating the impact of the Web and related technologies on the creation and transformation of goods and services and on organizations, industries, and society in general. Analysis covers concepts drawn from economics, including information asymmetries, efficient markets, transaction costs, switching costs, network externalities, adverse selection, and contracts. Topics include auctions, digital cash and e-payment systems, innovation and intellectual property rights, taxation and public good issues, and valuation and financing of e-business investments.

EBUS 670 Capstone Course in E-Business (3)  
Prerequisite: Completion of at least 27 credits of program coursework. A study of cross-cutting issues in e-business, such as trends in technology, intelligent and customer-focused design, and the nature of society and work in the networked environment. Emphasis is on the completion of two major projects. The first requires the use of scenario planning techniques to analyze and create distinct scenarios depicting alternative futures for an industry or technology. The second requires a thorough academic literature review of research on some aspect of e-business with the goal of producing a paper that could be presented at an academic or professional conference.

EDRS (Education: Reading)

EDRS 600 Secondary Reading I (3)  
(Formerly OMAT 607. For secondary content area, special education, and pre-K–12 teachers.) A study of the selection and evaluation of materials and resources for the effective teaching of reading. Emphasis is on the effective use of text and other media to best meet diverse reader needs. The role of the parent and community in fulfilling the goals of the literacy program is also examined.

EDRS 605 Secondary Reading II (3)  
(Formerly OMAT 608. For secondary content area, special education, and pre-K–12 teachers.) Prerequisite: EDRS 600 or OMAT 607. A study of the implementation of a coherent literacy program that supports content area learning and literacy. Focus is on the use of effective instructional methods and materials in the design of reading programs to meet the diverse needs and backgrounds of students.

EDRS 620 Processes and Acquisitions of Reading (3)  
(Formerly OMAT 620. For secondary content area, special education, and pre-K–12 teachers.) An overview of the theories, processes, and acquisition of reading and language arts skills in the elementary school. Emphasis is on the cognitive, linguistic, social, and physiological factors involved in oral and written language development. Concepts central to emergent literacy and the relationship between language and reading acquisition are explored.
EDRS 625 Instruction of Reading (3)
(Formerly OMAT 621. For secondary content area, special education, and pre-K–12 teachers.) A study of the selection and application of strategies for developing oral reading, comprehension, and literacy skills. A variety of techniques for building word recognition, integrating reading and writing, and enhancing understanding of text are addressed. Emphasis is on the development of a balanced literacy program attentive to early identification of reading difficulties and meeting diverse reader needs.

EDRS 630 Assessment for Reading Instruction (3)
(Formerly OMAT 622. For secondary content area, special education, and pre-K–12 teachers.) A study of the techniques, processes, and instruments for assessment of reading performance. The administration of assessment tools, interpretation of assessment data, and diagnosis of reading deficiencies are emphasized. The appropriate use of national, state, local, and classroom data for selecting instructional methods, facilitating instructional decisions, and monitoring student performance is also explored.

EDRS 635 Materials for Reading (3)
(Formerly OMAT 623. For secondary content area, special education, and pre-K–12 teachers.) A study of the selection and evaluation of materials and resources for the effective teaching of reading. The effective use of text and other media to best meet diverse reader needs is discussed. The role of the parent and community in fulfilling the goals of the literacy program is also explored.

EDTC (Instructional Technology)

EDTC 600 Foundations of Technology in Teaching and Learning (3)
(Formerly OMED 600.) An introduction to the integration of technology in the schools focusing on how instructional technology affects and advances K–12 learning. Topics include principles of integrating technology to strengthen standards-based curricula, instruction, and assessment; selection of software and other technological materials; uses of technology for collaboration with school-related audiences; issues of digital equity and ethics; and strategies for using digital technology with special needs populations.

EDTC 605 Digital Information Literacy for K–12 Educators (3)
(Formerly OMED 610.) Prerequisite or corequisite: EDTC 600 or OMED 600. A study of the use and evaluation of a wide array of electronic information resources, including educational resources on the World Wide Web and numerous subject-specific databases. A portfolio of electronic references is developed for use in curriculum design. Age- and content-appropriate exercises and assignments are created to help build K–12 student information literacy skills. Emphasis is on information resources in the field of education and in specific content areas to assist in future curriculum development and research activities. Criteria to evaluate the usefulness and validity of different types of education resources are developed and critically assessed.

EDTC 610 Web-Based Learning and Teaching: Design and Pedagogy (3)
(Formerly OMED 620.) Prerequisite: EDTC 600 or OMED 600. Prerequisite or corequisite: EDTC 605 or OMED 610. An examination of the theory that informs technology-enabled and Web-based education, with special attention to best pedagogical practices. Unique challenges related to original design and/or adaptation of Web courses are explored. Knowledge and skills are acquired to create individual assignments, special classes, units, and entire courses that take full advantage of synchronous, asynchronous, and/or multimedia technology. Emphasis is on creation of age-, content-, and context-appropriate exercises for students in a diverse array of classroom situations. Criteria and specific evaluation tools are developed to assess student learning outcomes with different pedagogical approaches, delivery techniques, core content areas, and technologies. Current and emerging technology-enabled curricular innovations are also examined.

EDTC 615 Using Technology for Instructional Improvement (3)
(Formerly OMED 640.) Prerequisites: EDTC 600 (or OMED 600) and 605 (or OMED 610.) An overview of the use of technology to become more effective in the classroom and more efficient planners. Technologies integral to curriculum and instruction can also enhance teachers’ day-to-day activities in classroom administration and management. Topics include presentation programs, database programs, spreadsheets, electronic gradebooks, desktop publishing, portfolio development, and various types of educational software. Practical applications for the contemporary classroom are emphasized.
EDTC 620 Technology in K–12 Education: Synchronous, Asynchronous, and Multimedia Technologies (3)
(Formerly OMED 630.) Prerequisite: EDTC 610 or OMDE 620. The technological foundation of the program, enabling K–12 teachers to employ appropriate technologies in classrooms and schools. The capacity of a variety of technologies designed to meet specific content, delivery, and learner goals and objectives are critically assessed. Particular attention is paid to Web site construction. Knowledge and skills are developed in the application of such real-time technologies as satellite broadcasting, audio conferencing, videoconferencing, synchronous chats, streaming audio and video, and asynchronous technologies such as e-mail and listservs.

EDTC 625 Hardware and Software in Instructional Development (3)
(Formerly OMED 650.) Prerequisites: EDTC 600 (or OMED 600) and 605 (or OMED 610.) The application of hardware and software programs in K–12 classroom settings. A variety of operating systems commonly found in schools are examined. Also investigated are a variety of instructional software packages related to specific subjects, with a cross-disciplinary emphasis on software for reading instruction and remediation. Issues such as compatibility with curricular goals, appropriateness of use, and student learning outcomes are also examined. A project in which specific software program is integrated into the classroom, experiences of students with the software are assessed, and the effectiveness of the software in achieving teaching goals and objectives is completed and evaluated.

EDTC 630 Administration of Technology Initiatives: Planning, Budgeting, and Evaluation (3)
(Formerly OMED 660.) Prerequisites: EDTC 600 (or OMED 600), EDTC 605 (or OMED 610), and completion of at least 15 credits in EDTC or OMED courses. An overview of the administration of technology in K–12 school systems. The impact of technology in schools is explored from a variety of perspectives, including access, planning, budgeting, maintenance, and life cycle management at the classroom, school, and district levels. Criteria for making financial and instructional decisions about technology are developed and evaluated. Emphasis is on knowledge and skills teachers can use to acquire classroom technology, including grant writing and public/private-sector partnerships.

EDTC 640 Technology Change Management in Schools (3)
(Formerly OMED 670.) Prerequisites: EDTC 600 (or OMED 600), EDTC 605 (or OMED 610), and completion of at least 15 credits in EDTC or OMED courses. An overview of the theories, approaches, and strategies that help teachers assume leadership roles in implementing technology change in K–12 schools. Topics include the role of change agents in K–12 schools, strategies to meet the needs of technologically unskilled teachers, tools and techniques to respond to diverse competency levels, and various training models and approaches for adult learners. Structured observation is employed to critically assess the effectiveness of various technology training formats. In a guided project, a technology-training seminar is designed, developed, and implemented for delivery to colleagues.

EDTC 645 Integration of Technology: Global Perspectives (3)
(Formerly OMED 690.) Prerequisite: EDTC 636. Exploration of global perspectives on advancing K–12 student learning through technology. Investigation covers how schools design innovative units and programs that take full advantage of technology’s ability to reach beyond national borders and promote global understanding and how various nations approach the challenge of technology integration in the schools. Focus is on evaluating best practices in the United States and other nations and on analyzing the role of policy in shaping the way resources are deployed to advance effective technology integration. Projects include designing models for integrating global understanding into curriculum and instruction, developing case studies of technology integration in various countries, and evaluating relevant research.

EDTC 650 Special Topics in Instructional Technology (3)
Prerequisite: EDTC 620 or DETC 620. An exploration of current topics in instructional technology which are offered on a rotating basis. Individual topics focus on advanced instructional multimedia for the K–12 classroom (including building interactive multimedia materials that meet the learning needs of diverse K–12 populations while developing skills using animation and other multimedia technologies) or on teaching and learning in the K–12 virtual school (including policies and structures of K–12 virtual schools, teaching and course development strategies appropriate for elementary and secondary school online courses, and emerging issues in the K–12 virtual enterprise).
EDTC 670 Integrative Capstone Project (3)
(Formerly OMED 680. Recommended as the final course in the program.) Prerequisite: Completion of at least 27 credits of EDTC or OMED coursework. A self-directed project, in which teachers collaborate with colleagues within or across grade levels or departments to incorporate innovations into the curricula. Throughout the seminar, a portfolio is built to demonstrate the development, implementation, and outcomes of the project. This capstone experience provides teachers the opportunity to apply previous knowledge and skills gained from other courses in the program.

EDTL (Education: Teaching and Leadership)

EDTL 610 Foundations of Technology for Teaching, Learning, and Leadership (6)
(Formerly EDTC 600 and 605.) An introduction to the integration of technology in the schools, focusing on how instructional technology and digital information affect and advance K–12 teaching, learning, and leadership. Topics include principles of integrating technology to strengthen standards-based curricula, instruction, and assessment; selection of software and other technological materials; uses of technology for collaboration with school-related audiences; issues of digital equity, safety, and ethics; strategies for using digital technology with special needs populations; and the use and evaluation of electronic information resources, including subject-specific library databases and educational resources on the World Wide Web.

EDTL 620 Using Technology for Instructional Improvement in the K-12 Schools (3)
(Formerly EDTC 615 and 625.) Prerequisite: EDTC 610. The application of educational theory and technology to the learning environments typically found in school districts and other learning contexts. Research on technologies that are employed for teaching, learning, and administrative tasks is explored. Hardware, software, networking, and other tools are examined, employing design issues that are strategic in assessing and advancing K–12 student learning. Topics include blogs, wikis, and social networking; computer operating systems; subject-specific and cross-disciplinary technology hardware and software; and the use of technology to meet the special needs of students.

EDTP (Education: Teacher Preparation)

EDTP 615 Alternative Teacher Preparation Program (6)
(Formerly RTCP 615.) A foundation in education principles designed as preparation for certification to teach in Maryland. Topics include teaching in the contemporary school; human development, learning, and diversity; curriculum, instruction, and assessment; teaching in the subject area; and synthesis and application.

EMBA (Business Administration—Executive)

EMBA 610 Leadership for Global Operations (6)
(Formerly XMBA 602.) An exploration of leaders’ roles and responsibilities in the global marketplace, with an emphasis on personal leadership development. A systematic framework is employed to examine leader, follower, and situational factors that are important for modern organizations. Topics include leader personality traits, behaviors, styles, and values; cultural competence; motivation theories and practices; teams; goal-setting, decision, and contingency theories of leadership; leadership of change and innovation; and transformational leadership.

EMBA 620 Strategy in the Global Environment (6)
(Formerly XMBA 601.) Prerequisite: EMBA 610. A study of the dynamic forces driving globalization, how they are shaping competition, and the critical role of strategy in the success of enterprise operations and governance. Tools for assessing the global logic of industries, how they are evolving under globalization and ongoing technological innovation, and what this means for their competitive structure are provided. Topics include changes occurring in international trade and financial systems, the effect of country and regional diversity on competition, and market capitalism.

EMBA 630 The Economics of Strategic Decision Making (6)
(Formerly XMBA 605.) Prerequisite: EMBA 620. An examination of the process of managerial decision making in a broadly strategic framework. Discussion covers the dynamics of individual and collaborative decision making, especially in the context of financial decisions. Focus is on decision making as it relates to corporate governance and major corporate restructuring such as mergers, acquisitions, and downsizing. The strategic effectiveness of managerial decision making is evaluated through organizational performance measures, based on the development of financial and nonfinancial metrics, scorecards, and dashboards.
COURSE DESCRIPTIONS

**EMBA 640 Strategic Global Marketing (6)**
(Formerly XMBA 603.) Prerequisite: EMBA 630. A study of business development strategies from the perspective of customer needs and preferences. Focus is on the primacy of the customer in the marketing process. Marketing is considered holistically as an organization-wide process driving the marketing mix, marketing ethics, innovation, competitive analysis, marketing information systems, pricing, global initiatives, e-commerce, customer profitability analysis, and marketing return-on-investment.

**EMBA 650 Managing Business Operations in a Global Environment (6)**
(Formerly XMBA 604.) Prerequisite: EMBA 640. An examination of the key strategic processes that allow modern global organizations to function effectively. Focus is on how an organization is efficiently managed with the optimum utilization of resources (operations management and enterprise resource planning), how vendors and suppliers are integrated seamlessly into the production process (supply chain management), and how customer interactions are facilitated effectively (customer resource management). Discussion covers how these strategies and information technology developments are being utilized to operate the modern organization. Topics also include the importance of project management and managing change as key ingredients to an organization’s success.

**EMBA 660 Risk and Opportunity in Global Business Development (6)**
(Formerly XMBA 606.) Prerequisite: EMBA 650. The development of effective risk mitigation strategies for a sponsoring organization to enter new international markets. External audits are conducted to identify and assess the relative risks and opportunities of expanding operations into specific country markets. Emphasis is on how the political, regulatory, and economic policies of specific countries affect business operations. Topics include the business impact of international trading systems, regional trading relationships, and overseas country environments. A required international study trip, focused on trade agreements and overseas operations, is designed to increase knowledge of and comfort with the new international markets.

**EMBA 670 Business Development Strategy and Capstone Project (6)**
(Formerly XMBA 607.) Prerequisite: EMBA 660. The development of an international business development plan for a sponsoring organization that integrates management techniques and methodologies gained in previous study. Focus is on strategic decision making in a globally competitive environment. Concepts, tools, and techniques from economics and the many other functional business disciplines are used. Although the framework and concepts applied are geared toward creating business success in a global environment, they are equally applicable to strategic leadership of nonprofit organizations and public agencies.

**ENER (Energy Resources Management and Policy)**

**ENER 603 Energy Infrastructure Management (3)**
An overview of U.S. and world energy infrastructure from the wellhead to the consumer. Topics include drilling, refining, transportation, and power generation and how the various energy grids fit together in a vast network of energy delivery services. The vulnerabilities in the system of energy delivery are identified, and methods to reduce these vulnerabilities are examined. Discussion covers energy infrastructure issues in developing countries and the means to leapfrog over existing technologies in order to develop an energy infrastructure. Energy infrastructure risk and security issues are explored, and measures to safeguard these infrastructures and minimize risk are introduced.

**ENVM (Environmental and Waste Management)**

**ENVM 641 Environmental Auditing (3)**
An examination of methods for attaining statutory, regulatory, and permitting compliance. The protection of workers and other stakeholders is also examined in the context of organizational, budgetary, and other constraints. Emphasis is on methods of defining auditing objectives to meet organizational goals and of designing auditing programs for effective compliance under each of the 12 major environmental statutes—including air, water, solid, and hazardous waste management laws and pollution prevention initiatives.

**ENVM 643 Environmental Communications and Reporting (3)**
An overview of the range of communication practices required for environmental managers in the fulfillment of legal, regulatory, ethical, and organizational responsibilities. The various populations with whom environmental managers must communicate and interact—including plant supervisors, corporate executives, regulators, the legal community, civic groups, labor unions, and the media—are identified and examined. Discussion covers various types of communication, from decision memoranda to environmental impact statements, presentations of corporate environmental policies before affected communities, and development/conveyance of technical evidence for obtaining permit variances.
ENVM 644 New Technologies in Environmental Management (3)
An overview of new waste management and waste minimization technologies, including treatment technologies such as physical and chemical treatment of hazardous wastes, bioreactors and bio-remediation, and reverse osmosis and ultrafiltration. Review covers disposal technologies, such as landfill design and operation, incineration, and encapsulation methods. Pollution prevention technologies, including process redesign and computer-aided process control, as well as the substitution of toxic materials, are also presented.

ENVM 646 Environmental/Energy Law and Policy Development (3)
An examination of U.S. environmental and energy law and policy, including its development, implementation, and enforcement; legislative, executive, and judicial perspectives; and the roles and impact these institutions have made on environmental and energy law and policy. Leading laws and their ensuing policies, such as the National Environmental Protection Act, the Clean Air Act, the Clean Water Act, the Resource Conservation and Recovery Act, the 1992 National Energy Policy Act, the FDR-era Federal Policy Act, the Public Utility Holding Company Act, and the Carter-era Public Utility Regulatory Policy Act, are examined.

ENVM 647 Environmental Risk Assessment (3)
An overview of the basic concepts of risk assessment. Topics include the four core parts of a risk assessment, as denoted by the National Academy of Sciences: hazard assessment, dose-response assessment, exposure assessment, and risk characterization. Methods of measurement and modeling are discussed, along with key questions concerning uncertainty. Differences in the risk characterizations of substances under different use conditions and legal requirements are studied. Significant case studies serve to illustrate the assessment process.

ENVM 648 Fundamentals of Environmental Systems (3)
(For students lacking a strong science background or experience in the environmental field.) An introduction to the basic concepts of environmental chemistry, physics, geology, and risk. Topics include the gaseous, liquid, and solid effluents from various industrial activities, as well as management methods and the statutory and regulatory requirements of major federal environmental laws affecting this management. Discussion also covers fundamental principles relating to the transport and fate of contaminants and industrial wastes and the basic vocabulary of the field.

ENVM 649 Principles of Waste Management and Pollution Control (3)
An introduction to various methods of waste management, including waste collection, transportation, recycling, treatment, and disposal and environmental monitoring. Focus is on hazardous and municipal solid waste, pollution prevention techniques, and waste minimization. An introduction to the process of disposal-facility site selection, design, and operation is also provided.

ENVM 650 Land and Water Resource Management (3)
An introduction to the development of multiple-use resource management strategies and the role of public policy in land and water resource management. Topics include free markets, market failure, and distributional equity issues; The Public Trust Doctrine; Native American Trust responsibilities; land use regulations; and enforcement of land and water restrictions, ex post liability schemes, and public purchase of private land and water rights.

ENVM 651 Watershed Planning Management (3)
An introduction to the concepts of watershed management and the development of watershed-related management planning documents. The physical characteristics of watersheds and their role in maintaining healthy environments and providing a natural resource to society are examined. Focus is on examining management techniques for the conservation and maintenance of watersheds.

ENVM 652 Principles of Air Quality Management (3)
An overview of management techniques for addressing air quality issues and managing air quality programs. Topics include air pollution law; air pollutants and their sources; effects of air pollution on health and welfare; sampling and analysis of air pollutants; standards, regulations, and enforcement systems; and quality assurance principles.

ENVM 653 Land Use Management (3)
An introduction to the powers, process, and practice of managing the patterns and land use implications of human settlement and the built environment. Topics include where to build, where not to build, how to build, and when to build. Discussion also covers the settlement history of the United States, as well as the constitutional and legislative mandates for government, private-sector participants, and institutions that shape land use policy. Emphasis is on the role of local government. Land use and environmental community planning, as well as best practices in land use management, are examined.
COURSE DESCRIPTIONS

ENVM 670 Seminar in Environmental Management (3)
A capstone study of environmental management that integrates knowledge gained in previous study for the solution of environmental management problems encountered in industrial, commercial, institutional, and military organizations. Focus is on management guidelines, such as ISO 14001, that provide an organizational framework for developing an environmental management system that can be integrated with other management requirements to help organizations support environmental protection in balance with socioeconomic goals. Case studies are used to illustrate applications of environmental management systems to various types of organizations. The capstone project requires assessment of the efficiency and effectiveness of an environmental management system at an organization and the development of recommendations for improvement.

FIN (Financial Management)

FIN 610 Financial Management in Organizations (3)
(Formerly ADMN 631. For students in an accounting or financial management specialization or program.) Prerequisite: MGMT 640. An investigation of financial management theory and applications in business, government, and not-for-profit organizations. Discounted cash flow and rate-of-return analysis are used to evaluate projects and financial instruments. Discussion covers the role of the cost of capital and the capital asset pricing model (CAPM) in capital investment analysis and selection. Capital budgeting, capital structure analysis, break-even analysis, scenario analysis, sensitivity analysis, real options, short-term financial management, and international finance are introduced.

FIN 615 Financial Analysis and Modeling (3)
(Formerly ADMN 632.) Prerequisite: FIN 610. An exploration of how financial managers use financial modeling, analysis, and research to build forecasts and projections, evaluate financial alternatives, and support financial decision making in both operational and strategic contexts. Models are developed using Microsoft Excel; exercises and extended case studies are utilized to interpret and employ results. Topics include financial statements and ratio analysis, cash flow forecasting, operations budgeting, breakeven and leverage analysis, time value of money applications, and capital budgeting and risk assessment.

FIN 620 Capital Markets, Institutions, and Long-Term Financing (3)
(Formerly ADMN 633.) Prerequisite: FIN 610. An exploration of the long-term capital needs of an organization and the roles of the capital markets and institutions. Topics include the financial environment of organizations, the role of the Federal Reserve and financial intermediaries, capital and money markets, options and futures markets, the capital budgeting decision process, capital structure management, dividend and share repurchase policy, and investment banking and restructuring. Various types of long-term funding sources—including term loans, derivatives, debt and equity securities, and leasing—are analyzed. Alternate policies with regard to financial leverage, capital structure, dividends, and the issuance of preferred stock, warrants and convertible debt are evaluated. Mergers, leveraged buyouts, and divestitures are examined as special situations to create value.

FIN 630 Investment Valuation (3)
(Formerly ADMN 634.) Prerequisite: FIN 610. An in-depth exploration and application of valuation models to support managerial decision making in a strategic framework. The theory, concepts, and principles underlying the valuation of firms, business/product lines, and mergers and acquisitions are addressed using extended exercises and applications. The discounted cash flow model is used as a tool. Discussion covers the financial drivers of value, including assessing and determining risk, competitive advantage period, and sales and earnings growth estimates. Other valuation techniques using earnings, revenues, and price/earnings multiples are also discussed and applied in selected examples.

FIN 640 Multinational Financial Management (3)
(Formerly ADMN 639.) Prerequisite: FIN 610. A study of financial management issues in multinational organizations. Topics include the environment of international financial management, foreign exchange markets, risk management, multinational working capital management, and foreign investment analysis. The financing of foreign operations, international banking, and the role of financial management in maintaining global competitiveness are also considered.

FIN 645 Behavioral Finance (3)
Prerequisite: FIN 630. A study of the key psychological obstacles to value-maximizing behavior and steps that managers can take to mitigate their effects, using the traditional tools of corporate finance. Focus is on understanding the underlying factors and processes that result in nonoptimal decision making by financial managers. Topics include perceptions about risk and reward and financial decision making in the areas of valuation, capital budgeting, capital structure, dividend policy, agency conflicts, corporate governance, and mergers and acquisitions. Readings and exercises explore the psychological basis of nonoptimal decision making from the perspective of the individual investor.
FIN 660 Strategic Financial Management (3)  
(Formerly FIN 670.) Prerequisites: FIN 610, 620, and 630.  
An integrative study of financial management through readings,  
discussion, applied problems, and case studies. Topics reflect the  
changing environment around the role of financial management in  
organizations and include corporate performance management, the  
role of intangibles in value creation, the restructuring of financial  
processes, corporate governance and ethics, value-based manage­  
ment, strategic cost management, and the impact of information  
technology on the organization's financial systems. A business  
finance simulation is used as an integrating mechanism.

HAIN (Health Administration Informatics)

HAIN 661 Health Administration Informatics (3)  
An integrative study of how information technology (IT) can be  
used by health care administrators to optimize individual practice  
and promote organizational effectiveness. Emphasis is on the strate­  
gic value of data and how the management, synthesis, and transform­  
ation of data affects both tactical and strategic decision making  
throughout the health care and IT enterprise. Topics include data  
structure, management, and manipulation and their implications for  
decision making; strategic information systems planning; e-health;  
local, national, and global IT policies and practices that affect the  
delivery of health care services; and the legal and ethical issues related  
to IT and their implications on practice for the health care adminis­  
trator. Evolving industry and global initiatives that affect the practice  
of health care administration are considered.

HAIN 670 Health Administration Informatics Capstone (3)  
Prerequisite: Completion of 30 credits of program coursework. A  
capstone study that integrates the fields of health care administration  
and informatics and applies them to the delivery of health care services  
in the rapidly changing health care environment. Focus is on practical,  
theory-based learning experiences. Key elements are examined from  
the perspectives of both health care administration and informatics.  
These include issues and challenges in U.S. and global health care sys­  
tems, potential new health care delivery models, approaches to strategi­  
cally shaping local and national policy, and the role of information  
technology (IT) in supporting the full continuum of care in health  
organizations. Tools and methods for strategic planning, implement­  
ing, and evaluating the efficacy of IT systems are explored.

HCAD (Health Care Administration)

HCAD 600 Introduction to Health Care Administration (3)  
An introduction to the principles of management and leadership as  
the foundations for the administration of health care products and  
service delivery. The evolution of management principles and prac­  
tices are traced and the bases for health care administration are ana­  
lyzed. Emphasis is on the management of global health care systems  
in technological societies and the need for innovation and creativity  
in health care administration. Focus is on mastering graduate-level  
critical thinking, writing, and ethical decision-making skills.

HCAD 610 Information Technology for  
Health Care Administration (3)  
(Formerly ADMN 669.) An overview of the management perspective of information technology (IT) and how health care  
administrators can use IT to maximize organizational performance.  
Fundamental principles of IT and data management and their  
implications for health care administrators are reviewed. Discussion  
explores the use of technology, databases, and other analytical  
tools to structure, analyze, and present information related to health  
care management and problem solving. Topics also include  
strategic information systems planning, systems analysis, system  
design, evaluation, and selection. Current applications, such as  
patient care, administrative and strategic decision support, man­  
aged health, health information networks, and the Internet are  
examined to determine how they may be used to meet the chal­  
 lenges facing health care administrators today and in the future.  
Focus is on the legal and ethical issues related to IT and their prac­  
tical implications for the health care administrator.

HCAD 620 The U.S. Health Care System (3)  
(Formerly ADMN 670.) A comprehensive examination of the com­  
plex, dynamic, rapidly changing health care system in the United  
States. The health care system's major components and their charac­  
teristics are identified. Emphasis is on current problems in health care  
financing and delivery. Social, economic, and political forces that  
have shaped and continue to influence the system are traced. The  
health care system in the United States is compared with sys­  
tems in industrialized and developing nations. Analysis covers cur­  
rent trends in health care and prospects for the future.
HCAD 630 Public Health Administration (3)
(Formerly ADMN 671.) An in-depth study of the field of public health, emphasizing leadership and management. The current U.S. public health system is analyzed, focusing on federal, state, and local public health entities and their management issues. Connections and relationships between the system of public health and the private personal health services market are also analyzed. Topics include the history and current status of public health, core functions, legislation, ethics, accountability (including assessment and evaluation), and the politics and financing of public health, particularly in light of the increased utilization of evidence-based budgeting. Contact with a public health agency in order to analyze a public health program or policy may augment text and lecture presentation.

HCAD 635 Long-Term Care Administration (3)
(Formerly HCAD 670 and ADMN 675.) A study of the management of skilled nursing, intermediate care, and long-term care facilities; day care, residential care, social HMOs, and community-based programs; and home health services. Long-term care administration is examined as encompassing all of those activities that relate to caring for and satisfying the essential needs of the aging population, including housing, health care, nutrition, education, and recreation. Textbooks and readings are supplemented by case studies in management of long-term care services and facilities.

HCAD 640 Financial Management for Health Care Organizations (3)
(Formerly ADMN 672.) Prerequisite: MGMT 640. An in-depth study of health care economics and the financial management of health care organizations. The economic principles underlying the American health care market and the financial management of health services organizations within that market are examined. Analysis covers free market and mixed market economies; barriers to free market economies; health care industry regulation, licensure, and certification; and various coverage and health care payment mechanisms. Topics also include reimbursement mechanisms and their effect on health care provider organizations, managed care, capitation, and per case or per diagnosis payment, as well as how these financial strategies are utilized by third-party payers. Focus is on financial challenges such as uncompensated care, cost increases, increased competition, and increased regulation and how health care providers should respond to them. Ratio analysis, cost analysis, working capital, capital budgeting and investment in relation to net present value and value added to the organization, and other financial management techniques are also discussed.

HCAD 650 Legal Aspects of Health Care Administration (3)
(Formerly ADMN 673.) An overview of the law and legal process as applied to the practice of health care administration. The principles of health care law, especially of contracts and torts, are discussed. Topics include legal and regulatory constraints imposed on the health care industry, the liability of health care providers, the rights of patients, labor relations, and administrative law for health care organizations. A variety of pressing bioethical issues facing health care practitioners and administrators are examined.

HCAD 660 Health Care Institutional Organization and Management (3)
(Formerly ADMN 674.) A study of the nature of management and how it is applied in various health care settings. Critical perspectives, tools, and techniques needed to successfully manage in the health care environment are examined. Discussion also addresses the management of the complex human and organizational relationships that exist both internally and externally in today’s health care settings.

HCAD 670 Health Care Administration Capstone (3)
(Formerly HCAD 690.) Prerequisite: Completion of 30 credits of program coursework. A capstone study of health care administration that integrates knowledge and skills gained from previous study in the development of a systems approach to health care administration. Focus is on public and private health care delivery systems, alliances with internal and external environments, and strategic decision making and implementation in the rapidly evolving global arena of health care administration.
HRMD (Human Resource Management and Development)

HRMD 610 Issues and Practices in Human Resource Management (3)
(Formerly ADMN 662. Strongly recommended as the first course in the human resources management specialization.) An overview of the human resource management profession, including the theories, research, and issues related to human resource management within modern organizations. The roles, responsibilities, relationships, functions, and processes of human resource management are discussed from a systems perspective. Expectations of various stakeholders, such as government, employees, labor organizations, staff/line management, and executive management, are explored. Particular attention is given to the general legal principles and provisions that govern human resource activities. The specialty areas of employee relations, staffing, human resource development, compensation, and organizational development are described. Current topics, such as human resource information systems and globalization, are addressed.

HRMD 620 Employee Relations (3)
(Formerly ADMN 661.) An investigation of the rights and responsibilities of employees and organizations in union and nonunion environments in the United States. The legal framework is reviewed, primarily at the federal level, and the strategic fit of the employee relations program/services within the organization is examined. Discussion covers current issues, such as equal employment opportunity, privacy, drug testing, wrongful discharge, health and safety, and pension and benefit plans, as well as public-sector and global issues.

HRMD 630 Recruitment and Selection (3)
(Formerly ADMN 666.) An examination of the initial phases of staffing, focusing on the hiring process. The contemporary roles, relationships, and processes of recruitment and selection in the human resource management system are investigated. Emphasis is on productivity factors (such as the use of technology) and quality factors (such as legal, ethical, and validity issues). Topics include international as well as domestic concerns and consideration of multiple staffing levels (such as executive managers and temporary employees). Current issues in private, not-for-profit, and/or public sectors are discussed.

HRMD 640 Job Analysis, Assessment, and Compensation (3)
(Formerly ADMN 663.) A study of the interrelated aspects of human resource management, including job design, job analysis, job evaluation, employee compensation, incentives to productivity, employee motivation, and performance appraisal. A variety of approaches for analyzing, weighing, and specifying the detailed elements of positions within modern organizations are presented. Discussion covers techniques for identifying and classifying the critical components of a job, defining the observable standards and measures, preparing and determining the job description and job worth, establishing equitable compensation for job performance, and developing an executive compensation program. The interaction of compensation, worker motivation, performance appraisal, and level of worker performance within the organization is examined.

HRMD 650 Organizational Development and Change (3)
(Formerly ADMN 664.) A study of the issues, theories, and methodologies associated with organizational development and the management of change, with a major emphasis on organizational culture and organizational change processes. Topics include the diagnostic process, intervention strategies, and overcoming resistance to change. Techniques such as goal setting, team-development procedures, productivity and strategy interventions, and interpersonal-change models are examined.

HRMD 651 Current Perspectives in Training and Development (3)
(Formerly ADMN 665.) An examination of the theories, research, skills, and issues related to one major aspect of human resource development, the management of organizational training services. The role of training in the workplace and adult learning models are investigated. Topics include curriculum management, program development, and operation management with an emphasis on design and delivery issues. The impact of technology, the global environment, and modern organizational structures are considered. Ethical issues are also discussed. Assignments include the development of training proposals or programs.

HRMD 665 Special Topics in Human Resource Management (3)
(Not open to students who have completed HRMD 621, HRMD 652, or HRMD 660.) A study of selected topics in human resource management. Specific content may vary by session.
COURSE DESCRIPTIONS

HSMN (Homeland Security Management)

HSMN 610 Concepts in Homeland Security (3)  
(Formerly ITSM 620.) An overview of the basic concepts of homeland security, including infrastructure protection, jurisdiction, and issues in technical areas such as interconnectivity and interoperability. The nation's telecommunications and information technology networks are examined as both vulnerable assets and critical solutions.

HSMN 620 Physical Security (3)  
(Formerly ITSM 624.) A comprehensive study of the many interdependent elements involved in protecting man-made structures from direct or indirect physical and cyber attacks. Various factors that affect physical security (including construction materials, architectural design, location, function, occupancy, and life cycle management) are examined. Accessibility, access control, traffic patterns, and internal and external communications are analyzed. Review covers methods for protecting critical infrastructure support systems, such as electric power, water supply, airflow, and information systems. Typical security policies and procedures for various categories of physical facilities (such as those involved in power generation, finance, and telecommunications) are also evaluated.

HSMN 630 Business Continuity: Disaster Recovery, Planning, and Response (3)  
(Formerly ITSM 626.) An in-depth examination of managerial and technical strategies for maintaining enterprise resiliency in the face of man-made or natural disruptions to business operations. Emphasis is on the importance of advanced planning. Techniques for performing business risk assessment and potential incident impact analysis are explored. Discussion covers alternative models for supporting contingency operations, including the use of service-level agreements. Key activities and processes involved in postevent business resumption, including the recovery of key information assets, are reviewed. Various formal business continuity standards, such as ISO 17799, are also introduced. Actual and hypothetical cases are analyzed.

HSMN 670 Seminar in Homeland Security (3)  
(Formerly ITSM 622.) An up-to-date evaluation of vulnerabilities and protective countermeasures regarding various aspects of the nation's critical infrastructure, with particular emphasis on the food and water supply. Topics include various threat profiles and actions by government, industry, independent institutions, and private citizens that might prevent attack from domestic or foreign sources and mitigate harmful consequences should such an attack occur. Discussion reviews the federal government's organization and management of food and water security and explores what further efforts might be made, building upon the nation's health system and engaging government at all levels. The singularly important roles of first responders are also analyzed.

IMAN (International Management)

IMAN 601 Strategic Management in a Global Environment (3)  
(The foundation course for the international management program; should be taken as the first course.) A study of global strategic management that establishes a framework for analyzing the competitive structure of industries and country environments, ascertaining the direction of industry change, and formulating strategy within an international context. Theories of competition and competitive strategy, as well as methodologies for formulating strategy relevant to major commercial environments, are examined. Discussion covers organizational and functional issues, including transnational company structures, the role of marketing, finance, trade, technology innovation, and the public-private interface in the formulation of firm strategy.

IMAN 610 Economics for Global Managers (3)  
An economics refresher, designed to enable managers both to understand the complexities of the marketplace and appreciate the economic implications of their managerial decisions. Managers need a working knowledge of key economic principles to fully appreciate the issues they face in the globalizing world economy. Competitive to monopolistic market structures and the ways in which different economic systems (from open to closed, or protected, market economies) affect economic outcomes are examined from a problem-oriented perspective. The management implications of a variety of economic concepts—including scarcity, opportunity cost, price and income elasticities, income distribution, market failures, transaction costs, the role of government, unemployment, inflation, and monetary and fiscal policy—are covered.

IMAN 615 Strategic Investment and Partnering (3)  
An in-depth examination of major entry strategies for international markets. Case-intensive analysis is used to gain insight into how to formulate strategy, negotiate and select partners, structure and manage business transactions, and identify legal implications over a range of market-entry vehicles. These vehicles include various types of strategic alliances—such as outsourcing; distributorship; greenfield investment and acquisitions; technology transfer; and licensing, franchising, and joint ventures—between companies based in different countries.
IMAN 625 International Trade and Economic Policy (3)
An examination of the theory and conduct of international trade and international economic policy and their effect on multinational enterprises. Focus is on the knowledge and skills needed by enterprises of all sizes to function effectively within trading rules. Discussion covers trade and international economic theory, especially how national trade policies affect the trading system. Topics include changes in the Bretton Woods system, the General Agreement on Tariffs and Trade (GATT), and the World Trade Organization (WTO) as they evolved and the effects of those changes on national policy and international business. The effects of various multilateral and regional trade agreements and national systems of trade laws and remedies are analyzed.

IMAN 631 Financial Management for Global Managers (6)
(A 6-credit course that integrates IMAN 630 and MGMT 640.) An investigation of financial decision making in business, government, and nonprofit organizations, as well as the theory and management of financial systems for the global enterprise. Topics include the environment of international financial management, foreign exchange markets, risk management, multinational working capital management, and foreign investment analysis. International banking, the financing of foreign operations, and the role of financial management in maintaining global competitiveness are considered. Discussion covers restructuring and strategic partnering; corporate governance; risk associated with consolidated financial statements; and the application of financial and nonfinancial information to a wide range of management decisions, from product costing and pricing to project analysis and organizational performance measurement. Activity-based costing procedures, breakeven analysis, target costing, and kaizen costing, as well as discounted cash flow techniques, are explored as a means of improving profit planning and operational efficiency.

IMAN 635 Managing Country Risk (3)
An overview of the tools needed to analyze the economic, political, and cultural risks of doing business in various international environments and to develop strategies for thriving in the midst of social change. Topics include stakeholder analysis, varying rules of market competition and intellectual property protection, ethical conflicts, corporate social responsibility, and the conduct of government relations.

IMAN 645 The International Legal and Tax Environment (3)
A comparative analysis of national and regional (European Union) legal systems, covering a variety of commercial and corporate matters such as contract law and the transactional environment of business. Topics include the impact of competing investment laws, national tax issues, intellectual property rights, and the resolution of disputes through international litigation, arbitration, and mediation.

IMAN 670 Managing Overseas Operations (3)
Prerequisite: 30 credits of program coursework, including all other core courses and IMAN 615 and 625 (3 credits may be taken concurrently). An examination of a wide range of management problems facing both large and midsized enterprises as they manage overseas operations. The development of a full-scale business plan for operating in a foreign market enhances skills (such as analyzing markets, designing business functions, solving staffing and control issues, and developing a supportive financial plan and organizational structure) for integrating entry strategy with strategy implementation. Special attention is paid to identifying the major challenges to implementing a global supply chain strategy and the approaches to overcome these challenges.
INFA (Information Assurance)

INFA 610 Computer Security, Software Assurance, Hardware Assurance, and Security Management (3)
(Formerly CSMN 655.) An overview of information security management. Topics include security architecture, security models, access control systems and methodology, applications and systems security, operation security, database security, cryptography, physical security, network and Internet security, business continuity planning, and law and ethics in information assurance. A brief review of the building blocks of information systems (such as computer organization and architecture, operating systems, data structure and algorithms, principles of programming languages, database, and software engineering) is provided to illustrate the scope of security management.

INFA 620 Network and Internet Security (3)
(Formerly TLMN 672.) An introduction to the security concepts needed for the design, use, and implementation of secure voice and data communications networks, including the Internet. A brief review of networking technology and standards (including an introduction to Internet communication protocols) is provided. Security subjects addressed include defense models, security policy development, authentication and authorization controls, firewalls, packet filtering, virtual private networks (VPNs), and wireless network security.

INFA 630 Intrusion Detection and Intrusion Prevention (3)
(Formerly CSMN 683.) An exploration of the theory and implementation of intrusion detection and intrusion prevention. Topics include network-based, host-based, and hybrid intrusion detection; intrusion prevention; attack pattern identification; deployment; response; surveillance; damage assessment; data forensics; data mining; attack tracing; system recovery; and continuity of operation.

INFA 640 Cryptology and Data Protection (3)
(Formerly CSMN 681.) An overview of the theory of encryption using symmetric and asymmetric keys, current protocols for exchanging secure data (including the Data Encryption Standard and the Advanced Encryption Standard), and secure communication techniques. A review of the historical development of cryptographic methods and cryptanalysis tools is provided. Public Key Infrastructure and the use of digital signatures and certificates for protecting and validating data are examined. Strategies for the physical protection of information assets are explored.

INFA 650 Computer Forensics (3)
An introduction to the fundamental concepts behind the collection and analysis of the digital evidence left behind in a digital crime scene. Topics include the identification, preservation, collection, examination, analysis, and presentation of evidence for prosecution purposes. Discussion also covers the laws and ethics related to computer forensics and challenges in computer forensics. Network forensics is briefly explored.

INFA 660 Security Policy, Ethics, and the Legal Environment (3)
(Formerly CSMN 685.) An overview of laws and ethics related to information assurance. The information security responsibilities of major domestic and international agencies (such as the Federal Bureau of Investigation, National Security Agency, and National Institute of Standards and Technology) are reviewed. Topics include issues involving information security management within an enterprise, such as suitable organizational policy, plans, and implementation strategies. Discussion also covers ethical issues, such as monitoring employee computer use and proper limitations on the use of customer data.

INFA 670 Information Assurance Capstone (3)
Prerequisites: INFA 610, 620, 630, 640, 650, and 660 (3 credits may be taken concurrently.) A study of information assurance that integrates and applies concepts previously studied. Best practices and appropriate technologies to design, implement, manage, evaluate, and further improve information security are explored. Emerging trends are analyzed to understand their potential effect on information security and assurance.

ISAS (Information Systems and Services)

ISAS 600 Information Systems for Managers (3)
(Formerly ADMN 640. Designed for managers without a technical background in computers and information systems.) Prerequisite: Basic microcomputer skills. An investigation of different types of hardware and software and their application in organizations from a systems perspective. Case studies are used to reveal technical and organizational issues, along with operational considerations. Emphasis is on determining managers’ needs for information and procuring and using appropriate computer systems.
ISAS 610 Information Systems Management and Integration (3)
(Formerly ADMN 641.) A study of the life cycle of the information system, from inception, through systems development and integration, to system operation and maintenance. Emphasis is on the integration of information systems with management systems of an organization. Major phases, procedures, policies, and techniques in the information system life cycle are discussed in detail.

ISAS 620 Information Systems Sourcing Management (3)
A study of how best to make and implement appropriate decisions in providing information systems to an organization. Focus is on the frameworks, tools, and techniques for making such decisions. Topics include the ‘make or buy’ sourcing decision and various models of outsourcing, from the contracting of finite technical services, through the use of off-the-shelf package software (including enterprise resource planning software), to the outsourcing of entire business processes. Processes and metrics used in the procurement and managing of outsourced services are also examined. Discussion also covers the phenomenon of “offshoring” (i.e., outsourcing business processes and functions to other countries) and its ramifications.

ISAS 630 Systems Analysis and Design (3)
(Formerly ADMN 643.) A study of current techniques and practices in requirements specification, software application selection, project management, and analysis and design of information system applications. Emphasis is on a management perspective in the specification of the information system’s logical and physical analysis and design.

ISAS 640 Decision Support Systems and Expert Systems (3)
(Formerly ADMN 644.) An investigation of computer applications for management support. The technologies of decision support systems and expert systems and the organizational factors leading to the success or failure of such systems are introduced. Topics also include group decision support systems, integration and implementation issues, and related advanced technologies such as neural networks.

ISAS 650 Information Technology, the CIO, and Organizational Transformation (3)
(Formerly ADMN 645.) An examination of how information technology can affect the strategic direction of an organization, how IT enables new ways of operating, and how the Chief Information Officer can serve as a trusted member of the organization’s top management team to help it exploit information technology effectively.

ITEC (Information Technology)

ITEC 610 Information Technology Foundations (3)
A fundamental study of technology and its applications, as well as the economic and social issues they have raised. Topics include computers, peripherals, databases, and networks; operations (of business, government, and other enterprises), decision support systems, and acquisition of information technology resources; and information security, productivity, equitable access by users, intellectual property rights, and global reach. Discussion also covers current and future developments in the field and their implications.

ITEC 620 Information Technology Infrastructure (3)
An introduction to the broad variety in information technology infrastructure from the perspectives of systems architecture, data communications, and networks. Topics include enterprise information infrastructure, multinational enterprise, servers and Web services, layered network architecture, convergence and Internet protocols, global WAN services, enterprise network design, wireless technologies, network security, network management, server architectures, storage management and networks, and content management networks.

ITEC 630 Information Systems Analysis, Modeling, and Design (3)
(Formerly CSMN 635.) A study of systems analysis and design, using selected engineering and management science techniques and practices. Topics include requirements determination, modeling, decision making, and proposal development. The System Development Life Cycle Model, including system implementation and postimplementation activities, is examined. Emphasis is on the specification of the information system’s logical and physical analysis and design from a management perspective. Research and project assignments related to information systems analysis, design, implementation, and/or project planning and control, require individual and group work.
ITEC 640 Information Technology Project Management (3)
An examination of the fundamental principles and practice of managing programs and projects in an information processing and high-tech environment. The dynamic nature of IT and the effect of life cycles are explored. The fundamental building blocks of high-tech management styles (including project planning, organizational structure, team building, and effective control mechanisms) are addressed. Discussion covers the effect of product and project life cycles in delivering a successful IT project, considering the obsolescence factors in procurement/stakeholder contracts. The goal is to gain a solid foundation to successfully manage each phase of the project life cycle, work within organizational and cost constraints, set goals linked directly to stakeholder needs, and utilize proven management tools to execute a dynamic project on time and within budget. Emphasis is on how to apply the essential concepts, processes, and techniques in the management of large-scale governmental or commercial programs.

MGMT (Management)

MGMT 610 The Manager in a Technological Society (3)
(Formerly ADMN 601.) An overview of the fundamental concepts of organizational theory and design in the context of a postindustrial and increasingly global society. The study of organizations encompasses several key knowledge areas essential to today's manager: the impact of technological and workforce changes on society, organizational ethics and social responsibility, global issues, history of management thought and its relevance for managers today, and systems thinking and the challenges of managing in today's complex and rapidly changing environment. Discussion addresses essential concepts in organizational theory and design, including measuring effectiveness, organizational life cycles, options for organizational structure, and becoming the learning organization.

MGMT 615 Intercultural Communication and Leadership (3)
(Formerly IMAN 605. Not open to students who have completed MGMT 620, MGMT 625, ADMN 625, ADMN 635, ADMN 625C, or ADMN 635C.) A study of organizational communication, leadership, and decision-making skills essential for all managers in intercultural environments. Theories of culture are examined and applied in relation to leadership style and practices, as well as to organizational communication across cultural groups. Team development and leadership are explored in an intercultural environment.

MGMT 630 Organizational Theory and Behavior (6)
(Not open to students who have completed MGMT 610, MGMT 615, MGMT 620, MGMT 625, MGMT 635, ADMN 601, ADMN 620, ADMN 625, ADMN 635, ADMN 625C, or ADMN 635C.) An overview of the fundamental concepts of organizational theory and organizational behavior in the context of a postindustrial and increasingly global society. Topics include the impact of technological and workforce changes on society, organizational ethics and social responsibility, organizational communication, leadership and decision-making skills in intercultural environments, the history of management thought and its relevance for managers today, and systems thinking and the challenges of managing in today's complex and rapidly changing environment.

MGMT 640 Financial Decision Making for Managers (3)
(Formerly ADMN 630.) Prerequisite: Knowledge of the fundamental concepts of financial accounting and economics, including opportunity cost, the time value of money, and financial analysis. An investigation of financial decision making in business, government, and not-for-profit organizations. Emphasis is on the application of financial and nonfinancial information to a wide range of management decisions, from product pricing and budgeting to project analysis and performance measurement. A variety of decision-making tools (such as break-even analysis, activity-based costing procedures, linear programming, discounted cash flow techniques, and the balanced scorecard. Contemporary managerial such as target costing and kaizen costing, are explored as a means of improving operational efficiency.

MGMT 645 Legal Aspects of Management (3)
(Formerly ADMN 637.) A study of the legal consequences of major issues facing managers in dynamic organizations. The nature and structure of the traditional American legal system and current alternatives for resolving disputes are reviewed. Discussion covers employment contracts and reference checks, job descriptions and evaluations, employee termination, discrimination, age and handicap regulations, and substance abuse testing in the work place. Topics also include union and nonunion environments, contracts, torts and product liability, business/white collar crime, and ethics in the work place. Emphasis is on preparing managers with limited legal experience for dealing with these situations before they develop into workplace crises.
MGMT 650 Research Methods for Managers (3)
(Formerly ADMN 638.) Prerequisite: Knowledge of the fundamentals of statistical research, including data collection techniques, presentation of data in tables and charts, basic descriptive statistics, basic probability distributions, normal distribution and sampling distributions, estimation, and hypothesis testing. A presentation of techniques and methodologies related to the evaluation and utilization of organizational research and evaluation studies in making business decisions. Focus is on the analysis and interpretation of research-based materials developed by other individuals in assessing the performance of individuals, work groups, and organizations. Topics include principles of good research design, measurement, appropriate sample size, research instruments, procedures for collecting and analyzing data, and the evaluation and use of existing research-based materials in solving business problems. Various approaches to data collection (including the Internet) and usage that best serve the practical needs of the manager are provided.

MGMT 670 Strategic Management Capstone (3)
(Formerly ADMN 651.) Prerequisite: Completion of 24 credits of program coursework, including all core courses. A capstone investigation of how strategy interacts with and guides an organization within its internal and external environments. Focus is on corporate and business unit–level strategy, strategy development, strategy implementation, and the overall strategic management process. Topics include organizational mission, vision, goal setting, environmental assessment, and strategic decision making. Techniques such as industry analysis, competitive analysis, and portfolio analysis are presented. Discussion covers strategic implementation as it relates to organizational structure, policy, leadership, and evaluation issues. The ability to “think strategically” and to weigh things from the perspective of the total enterprise operating in an increasingly global market environment is emphasized. Case analyses and text material are used to integrate knowledge and skills gained through previous study. Problems and issues of strategy formulation are investigated through participation in the Business Strategy Game simulation.

MRKT (Marketing)

MRKT 600 Marketing Management (3)
(Formerly ADMN 686.) A study of the theory and practices related to the management of the marketing function as applied by managers and administrators in organizations. Analyses of case studies are used to demonstrate the necessity of incorporating marketing with other business functions. Emphasis is on the planning and implementation activities required to attain the organization’s marketing goals. Topics include the product/service mix, pricing, marketing communications such as advertising and sales promotion, and channels of distribution. Control techniques for the overall marketing mix are also introduced.

MRKT 601 Legal and Ethical Issues in Global Communications (3)
(Formerly PRPA 604.) A survey of the ethical and legal constraints placed on marketing and public relations practitioners. Topics include ethical models, First Amendment issues, libel, privacy, and confidentiality. The integration of public relations with advertising and marketing efforts is discussed, with emphasis on the ethical and legal issues inherent in this integration.

MRKT 602 Consumer Behavior (3)
A study of the cognitive and behavioral bases underlying consumers’ buying preferences and decision processes, intended for managers and administrators who have to evaluate the efficacy of the firm’s marketing plan. Emphasis is on the role of the communications strategy (for example advertising, promotion, public relations) in achieving the overall marketing objectives.

MRKT 603 Brand Management (3)
(Formerly ADMN 685.) A presentation of the concepts and techniques for creating and selecting marketing strategies for an organizational unit that survives on its ability to provide products and services to other organizations. Discussion covers trends toward a “marketing culture” in both public and private institutions and the implications that this change has for all managers and administrators. Emphasis is on the role of brand equity in achieving a sustainable competitive advantage.

MRKT 604 Marketing Intelligence and Research Systems (3)
(Formerly ADMN 688.) Prerequisite: MGMT 650. A study of marketing research methods and techniques useful to managers and administrators with responsibility for assessing or increasing the demand for their organization’s product, programs, and services. Methodologies and issues related to the design and completion of marketing research projects (including the survey, observational, and experimental methods used in assessing and segmenting markets) are presented. Discussion covers data analysis that is especially useful for marketing research (that is, focus groups, customer visits, conjoint analysis, and multidimensional scaling).

MRKT 605 International Marketing Management (3)
(Formerly IMAN 640.) An overview of the fundamentals of marketing and marketing management, presented in the context of competitive global environments and diverse national economies. Topics include demand analysis, product development, product pricing, marketing organization, foreign representation and distribution systems, promotion, advertising, and sales and service. Review also covers regulatory issues as they relate to international marketing.
MRKT 606 Integrated Direct Marketing (3)
(Formerly ADMN 689.) Prerequisite: MGMT 650 or appropriate background in statistics. A systematic approach to integrated direct marketing—the process of precision deployment of multiple media and sales channels to maintain contact with the customer. Traditional direct marketing techniques, such as database marketing, direct mail, and telemarketing (as well as digital techniques, including e-mail and Web sites), are explored. Topics include lifetime value, performance measurement, cost per million (CPM), and cost per response.

MRKT 620 Marketing Principles, Regulation, and Ethical Issues (6)
An examination of the pivotal role of marketing in organizations and the ethical and legal constraints on marketing practitioners. Topics include competitive strategy, market segmentation, e-commerce issues, the product/service mix, pricing strategies, channels of distribution, customer service, and marketing communications (e.g., advertising, public relations, and sales promotions). Ethical and legal issues surrounding the practices of marketing, advertising, and public relations are examined in depth. The practical aspects of marketing management are analyzed through discussion of current marketing activities, emerging trends, problems, and cases. Students who receive credit for MRKT 620 cannot receive credit for ADMN 686, MRKT 600, MRKT 601, or PRPA 604.

MSAF (Accounting and Financial Management)

MSAF 670 Accounting and Financial Management Capstone (3)
(Formerly ADMN 619.) Prerequisite: Completion of all program coursework except FIN 640 or ACCT 665. A capstone study integrating subject matter from previous study in financial management and accounting. Advanced principles, techniques, and theories are applied through analysis and presentation of case studies by student teams. Assignments include a research paper that comprehensively assesses an important current issue or emerging trend in the fields of accounting and information technology.

MSAT (Accounting and Information Technology)

MSAT 670 Accounting and Information Technology Capstone (3)
(Formerly ADMN 618.) Prerequisite: Completion of all program coursework except INFO 610 or ACCT 665. A capstone study integrating subject matter from previous study in accounting and information technology. Advanced principles, techniques, and theories are applied through analysis and presentation of case studies by student teams. Assignments include a research paper that comprehensively assesses an important current issue or emerging trend in the fields of accounting and information technology.

MSFS (Financial Management and Information Systems)

MSFS 670 Financial Management and Information Systems Capstone (3)
Prerequisite: Completion of all program coursework except FIN 645 or INFA 610. A synthesis of material from all previous study in financial management and information systems that reflects the importance of information systems in modern organizations and the role of the CFO/CIO in managing this resource to maximize value. Simulations provide the opportunity to apply theory to practice. Topics include the acquisition, installation, and management of information systems. Important current issues and emerging trends in the fields of financial management and information systems are emphasized through special readings, briefing papers, and discussion.

NPMN (Nonprofit Management)

NPMN 600 Nonprofit and Association Organizations and Issues (3)
(Formerly ADMN 656.) A presentation of a framework outlining the roles and functions of the principal types of nonprofit organizations. Characteristics that distinguish nonprofit organizations from their counterparts in the private and public sectors are introduced. The challenges, opportunities, and common issues facing managers of nonprofit organizations are explored. These issues include administrative cost control, preserving the organization’s legal status and revenue base, staffing and organizing in response to client needs, and ethical considerations. Specific laws, regulations, policies, and court rulings that affect the nonprofit sector are examined.
NPMN 610 Nonprofit and Association Law and Governance (3)
(Formerly ADMN 657.) A study of current ideas and approaches related to nonprofit law, governance, and mission. Discussion covers distinctions between nonprofit, educational, charitable, social action, membership, cultural, scientific, environmental, and trade associations as they relate to incorporation, legal standing, tax-exempt status, and governance are made. Topics include nonprofit governance and trustee issues, as well as lobbying and advocacy, nonprofit liability, personnel, and unrelated business income tax. Special attention is paid to the relationship of governance and ethics in nonprofit management.

NPMN 620 Nonprofit and Association Financial Management (3)
(Formerly ADMN 654.) A detailed study of theories and practices of nonprofit financial management and decision making, including budgeting, reporting requirements, nonprofit accounting, and financial standards. Focus is on the role of financial management in maintaining the fiscal health and legal status of the nonprofit organization. Topics include budgeting, fund accounting, cash flow analysis, expenditure control, long-range financial planning, audits, and grant and contract management. Discussion also covers compliance with nonprofit accounting and financial management principles in reference to maintaining public access and ethical standards.

NPMN 640 Marketing, Development, and Public Relations in Nonprofit Organizations and Associations (3)
(Formerly ADMN 658.) A study of the principles and practices required to develop and promote the products, services, positions, and image of nonprofit organizations. Focus is on fundraising and membership recruitment issues. Topics include the design of a marketing strategy and marketing mix, pricing issues, alternative revenue-generating mechanisms, and customer service. Discussion also explores use of the media, advertising and promotion methods, and relationships with business, government, and the community. The integration of sponsors, members, and chapters in the total marketing effort is examined.

NPMN 650 Fundamentals of Association Management (3)
A study of the unique and important niche of associations within the nonprofit sector. Analysis covers the history of associations, political groups, trade lobbying groups, and foundations in relation to their varying missions, internal capacity, shifting environments, and legal status. Associations also are assessed in terms of their wider environment, including the extent of their labor force and command of capital resources. Discussion also covers the wider influence of associations on U.S. economy and policy.

NPMN 655 Process and Outcome Evaluation for Nonprofit Organizations (3)
(Prerequisite: NPMN 650). An examination of the growing importance of process and outcome evaluation to nonprofit organizations in supporting their missions. Various quantitative and qualitative evaluation strategies, as well as quality and process-improvement methodologies, are explored. Topics include important evaluation concepts such as validity and reliability of various data collection tools, various approaches to sampling, and precision of results.

NPMN 660 Strategic Management in Nonprofit Organizations and Associations (3)
(Formerly NPMN 670.) A study of the integration and application of strategic management principles, concepts, and practices in nonprofit organizations. Topics include the development of mission statements, goal-setting concepts, and strategy formulation and implementation approaches. Assignments focus on designing organizational plans and strategies relevant to the specific needs of organizations.

OMDE (Distance Education)

OMDE 601 Foundations of Distance Education (3)
(Developed by Ulrich Bernath of Germany and Eugene Rubin of the United States, in collaboration with Borje Holmberg of Sweden and Otto Peters of Germany.) An overview of the knowledge, skills, and attitudes that are required by a competent practitioner of distance education. Critical concepts and issues identified in the distance education literature are explored and the history and theories of the field are critically examined.

OMDE 603 Technology in Distance Education (3)
A review of the history and the terminology of technology used in distance education. The basic technology building blocks of hardware, networks, and software are identified. Analysis covers the characteristics of asynchronous and synchronous technologies and tools used in the teaching and learning, as well as the administration of distance education. The relationship between technology and the goals of the educational/training organization are critically examined. The relationship between information technology (especially online technology) and distance education is explored. Topics include the criteria and guidelines for selecting technologies for distance education and the future directions of technology in distance education.
OMDE 606 Costs and Economics of Distance Education (3)
(Developed by Thomas Huelsmann of Germany.) A study of the economics of distance education in the larger context of the economics of education. A variety of methodological approaches (including cost/benefit and cost/effectiveness analysis) are applied to the distance education context. A variety of costing techniques and economic models are explored and applied to different institutional forms and levels of distance education.

OMDE 608 Learner Support in Distance Education and Training (3)
An introduction to the theories and concepts of support for learners in distance education and training. The various types of learner support—including tutoring and teaching; advising and counseling; and library, registrarial, and other administrative services—are examined. Discussion addresses management issues, such as planning, organizational models, staffing and staff development, designing services to meet learner needs, serving special groups, and evaluation and applied research. Assignments include designing a learner support model for a particular context (e.g., public or private educational institution or corporate or military training).

OMDE 610 Teaching and Learning in Online Distance Education (3)
An exploration of the online teaching and learning dynamic, including its theoretical foundation and best practices. The themes that shape the online teaching/learning relationship are addressed through individual and collaborative projects. Topics include philosophical frameworks; instructional, social, and cognitive presence; interaction, collaboration, and participation; community and engagement; and administration and management.

OMDE 670 Portfolio and Project in Distance Education (3)
(Formerly OMDE 690.) A capstone study of distance education and training designed to demonstrate cumulative knowledge and skills through two major projects: an electronic portfolio and a case study. The personal e-portfolio documents credentials and accomplishments to date and also serves as an ongoing resource and record of continuing professional development. The case study, which focuses on a distance education/training program or organization, involves in-depth analysis of the setting and application of concepts and strategies to enhance practice and performance in distance education and training.

PCMS (Procurement and Contracts)

PCMS 626 Purchasing and Materials Management (3)
(Formerly ADMN 626.) An overview of the procurement and contracting cycle, along with other organizational functions. Discussion covers methods of purchasing and source selection, with a focus on receipt, inspection, and quality assurance. Documentation and reporting specifics are examined, as are surplus, salvage, and disposal issues. Inventory, physical distribution, and logistics are considered.

PCMS 627 Legal Aspects of Contracting (3)
(Formerly ADMN 627 or PMAN 636.) A study of the law of commercial purchasing, including the law of agency, contracts, sales, torts, and antitrust. The Federal Acquisition Regulation and American Bar Association model procurement codes for state and local governments are examined. Topics include the authority of purchasing, unauthorized purchases, rights and duties of sellers and buyers under a contract, buyer rights upon receipt of nonconforming goods, ability to terminate a sales contract, formation of government contracts, and formal dispute resolution.

PCMS 628 Contract Pricing and Negotiations (3)
(Formerly ADMN 628.) A study of techniques for planning, conducting, and managing negotiated procurement. Focus is on analytical techniques for conducting price and cost analysis in preparation for negotiations. Techniques for critically examining all categories of costs, including profit, are examined. The theory and practice of negotiations are studied, and opportunities to practice negotiation techniques to achieve a fair and reasonable contract price are given. Emphasis is on practice in preparing negotiation positions through analysis of cases containing detailed cost and pricing data. Ethical decision making throughout these processes is addressed.

PCMS 629 Strategic Purchasing and Logistics (3)
(Formerly ADMN 629.) An investigation of issues and methodologies related to strategic purchasing and logistics. Topics include the ethics, social responsibility, and accountability considerations in procurement, logistics, and contract management. Discussion also covers the professional development of staff, just-in-time management, electronic data interchange, vendor assessment and development, pricing and negotiation, and international procurement issues.
PCMS 630 Commercial Transactions in a Technological Environment: Law, Management, and Technology (3)
(Formerly ADMN 660.) Recommended: PCMS 627 or ADMN 627. A presentation of the legal issues and management methodologies related to commercial transactions in a technological environment. Topics include the law, ethics, accountability, and contract management considerations in the procurement of technology products and services. Discussion also covers commercial sales transactions, government commercial item acquisition, private and government contracts for services, assignment and protection of proprietary rights in technology products, technology transfers, and international contractual issues in the procurement of products and services.

PCMS 631 Integrative Supply Chain Management (3)
(Formerly ADMN 622.) A study of supply chain issues, techniques, methodologies, and strategies designed to enhance organizational procurement efficiency. Integrated supply chain management, as a core competitive strategy that affects the organization’s bottom line, is explored. Topics include the integration of information, supplies and materials flows across multiple supply chain channels, and how these flows can be streamlined and optimized for more efficient procurement. Discussion also covers the role of information systems and technology in supply chain management, e-commerce strategies, managing the flow of materials across the supply chain, developing and maintaining supply chain partnerships and other relationships, and future challenges in integrative supply chain management.

PCMS 632 Contemporary Logistics (3)
(Formerly ADMN 623.) A study of logistical issues, techniques, methodologies, and strategies designed to enhance organizational efficiency. Topics include the total cost approach to logistics; logistical planning and implementation; logistical concepts; systems relationships and integration; demand forecasting; interplant movement; inventory management and control; order management and processing; packaging; plant and warehouse selection; production scheduling; traffic and transportation management; warehouse and distribution management; recycling; and other logistical strategies, techniques, and methodologies.

PCMS 650 Legal Aspects of Contracting and Commercial Transactions (6)
A study of the law relevant to commercial, governmental, and international purchasing, contracting, and other legal transactions. Focus is on agency law, contracts, sales, torts, antitrust, ethics, and accountability. Discussion covers contract management considerations in the procurement of products and services. Topics include commercial sales transactions, government commercial item acquisition, private and government contracts for services, assigning and protecting propriety rights in technology products, technology transfers, and international contractual issues in the procurement of products and services. The Federal Acquisition Regulation (FAR) and American Bar Association Model Procurement Code for state and local government are investigated. The authority of purchasing, unauthorized purchases, rights and duties of sellers and buyers under a contract, buyer rights upon receipt on nonconforming goods, ability to terminate a sales contract, formation of government contracts, and formal dispute resolution are also addressed. Students who receive credit for PCMS 650 cannot receive credit for PCMS 627 or PCMS 630.

PMAN (Project Management)

PMAN 600 Project Management: Foundations and Advanced Methods (6)
A one-semester study of the foundations of project management, including project planning, organizing, team building, tracking, and controlling. Analytical and quantitative concepts involved in project management (such as techniques for estimating project time and cost, optimizing allocation of resources, expediting projects, and applying scheduling algorithms) are examined. Simulation tools and statistical techniques are used to analyze uncertainty in project selection, budget allocation, and time estimation. The processes, tools, and techniques of project management are applied to a large-scale governmental or commercial project that is developed from proposal to completion through group work. Students who receive credit for PMAN 600 may not receive credit for PMAN 634, PMAN 635, or PMAN 670.

PMAN 634 Foundations of Project Management (3)
An overview of the theory and practice of managing projects in any organization. Focus is on the fundamental building blocks of project management, including project planning, organizing, team building, tracking, and controlling projects. Key aspects of management and proven techniques that differentiate project management from other types of management are examined in-depth. The goal is to gain a solid understanding and foundation to successfully manage each phase of the project life cycle, work within organizational constraints, set goals linked directly to stakeholder needs, and utilize proven project management tools to complete projects on time and within budget while meeting specifications. Essential concepts, processes, and techniques are applied through management of a team project.
COURSE DESCRIPTIONS

PMAN 637 Project Risk Management (3)
Prerequisite: PMAN 600 or PMAN 634. An in-depth analysis of risk management methodologies, from both strategic and tactical perspectives. State-of-the-art tools and techniques for identifying, measuring, and monitoring risks in the project management environment are examined. Both qualitative and quantitative risk analyses are conducted, and strategies for proactive risk aversion and reactive risk response are developed. Focus is on how a comprehensive risk management approach can enable a project team to proactively manage issues that adversely impact the successful control and completion of a project.

PMAN 638 Project Communications Management (3)
Prerequisite: PMAN 600 or PMAN 634. An overview of conflict resolution processes and methods and the skills needed to manage the human elements within project management—a task as challenging as managing the technical aspects. Topics include critical communication and conflict resolution issues faced by project workers in today’s global corporate environment. Innovative approaches to successfully negotiating and resolving conflicts among team members, colleagues, managers, and stakeholders are introduced and practiced. Proven techniques to make conflict a constructive rather than a destructive experience are analyzed. Emphasis is on case study analysis, effective communication behaviors, negotiation skills, and virtual team processes to successfully lead both domestic and global projects.

PMAN 639 Project Quality Management (3)
Prerequisite: PMAN 600 or PMAN 634. A study of the policy, processes, and procedures involved in assuring that projects will satisfy the objectives for which they were undertaken. Emphasis is on quality planning, quality assurance, quality control, and process improvement. Discussion covers all the activities that determine quality objectives, policies, and responsibilities. The importance of customer satisfaction, prevention over inspection, management responsibility, and continuous improvement is recognized. Topics include control charts, cause and effect diagrams, Pareto charts, failure mode and effect analysis, design reviews, and cost of quality. Course content and approach are compatible with the International Organization for Standardization.

PMAN 641 Project Procurement Management (3)
Prerequisite: PMAN 634. An examination of the tools needed for project procurement management. Focus is on determining what needs to be purchased or acquired and determining when and how to acquire it. Topics include planning the contracting efforts (documenting products and services and identifying potential sellers); requesting sellers’ responses (obtaining information, quotation, bids, offers, or proposals); selecting the seller (receiving and reviewing offers, selecting among those potential offers, and negotiating a contract); administering contracts (managing the relationship between buyers and sellers, including documentation, corrective actions, and contract changes); and closing contracts (completing the contract and settling all open issues).

PMAN 650 Financial Management of Projects (3)
Prerequisite: PMAN 600 or PMAN 634. An investigation of financial decision making in the management of projects. Topics include developing cost estimates, analyzing accuracy of estimates, and monitoring and controlling project budgets, as well as top-down and bottom-up budgeting, in particular integrating cost estimates with work breakdown structures. Techniques of cost and schedule control are discussed in the context of project baselines against which projects can be monitored and redirected. Discussion also covers managing change within the project (through design of a project control system, the use of reserves, methodologies to exercise control, and change management practices) and breakeven analysis, discounted cash flow, and financial risk management in the context of cash flow, schedule, and cost. How various functional units in an organization perceive costs differently and how project costs affect both project and corporate financial performance are examined. Earned value analysis is applied as a technique for evaluating, monitoring, and forecasting project costs and schedule.

PMAN 670 Advanced Project Methods (3)
(Formerly PMAN 635.) Prerequisite: PMAN 600 or PMAN 634. An overview of advanced methods of managing projects using industry-standard software tools for project management and risk analysis. Topics include analytical approaches and quantitative methods involved in project management, such as techniques for estimating project, time, and cost; optimizing allocation of resources; expediting projects; and applying scheduling algorithms. Simulation tools and statistical techniques are used to analyze uncertainty in project selection, budget allocation, and time estimation. The processes, tools, and techniques of project management are applied to a team project.
**PRPA (Public Relations)**

**PRPA 601 Public Relations Theory and Practice (3)**
Prerequisites: MRKT 600 and 601 (or MRKT 620). A study of the relationship between the management function of policy formulation and the communication process of disseminating ideas and information to the organization's public. The process of planning and executing public information and public relations programs to address the concerns of the organization's various publics are examined. Topics include message formation, media selection and audience differentiation. The impact of the Internet on public relations practices is explored in depth.

**PRPA 602 Public Relations Techniques (3)**
Prerequisite: PRPA 601. A presentation of advanced writing techniques designed to improve skills in the writing of specialized public relations materials. Emphasis is on audience, message, and channel identification. Topics include special communication techniques necessary for broadcast and electronic media.

**PRPA 610 Crisis Communication Management (3)**
Prerequisite: PRPA 602. An examination of current approaches to crisis definition, issue management, and crisis communications management. Traditional and Web-based approaches to analyzing crisis and communications management issues are applied using appropriate public relations research, theory, and case examples to better identify issues and audience segmentation requirements and develop strategic public responses to crisis situations.

**PRPA 620 Global Public Relations (3)**
Prerequisite: PRPA 610. A study of the role, function, and influence of public relations in a global environment. Topics include global trends, multicultural communication knowledge and skills, multiple cultures and diversity within nations, national media structures and public policy, and international legal and ethical codes in public relations. Global case studies are used to develop and implement strategic and creative communications plans.

**PRPA 650 Public Relations Campaigns (3)**
(Formerly PRPA 670.) Prerequisite: Completion of 30 credits, including all core and specialization courses for the public relations specialization (except MGMT 670); approval of program director required for internship option. A study of public relations campaigns that integrates content from previous coursework. Focus is on creating a public relations strategy and a plan to execute that strategy for an existing organization. Critical principles of public relations are reviewed and applied in real-world settings.

**SWEN (Software Engineering)**

**SWEN 603 Systems Engineering (3)**
(Formerly MSWE 603.) An examination of the systems engineering process, with special emphasis on software engineering as a discipline within systems engineering. Topics include an overview of system theory and structures, elements of the system life cycle (including systems design and development), risk and trade-off analyses, modeling and simulation, and the tools needed to analyze and support the systems process.

**SWEN 640 Software Project Management (3)**
(Formerly MSWE 640.) A study of the current theory and practice of software development project management. Topics include integration, scope, time, cost, quality, human resources, communications, risk, and procurement management as defined in the Institute of Electrical and Electronics Engineers (IEEE) Standard for project management. The relationship between each knowledge area and the detailed processes required to manage software projects is explored. Various approaches to software project planning, software project estimating, networks and scheduling, tracking and control, and technical and support processes are analyzed. Principles are applied through the development of a software project management plan for a complex system.

**SWEN 645 System and Software Standards and Requirements (3)**
(Formerly MSWE 645.) An examination of major models of software requirements and specifications (sequential and concurrent systems), existing software standards and practices, and formal methods of software development. A comparative survey of various languages and methods serves to emphasize similarities and significant differences. Topics also include writing system and software requirements, formal specification analysis, formal description reasoning, models of “standard” paradigms, and translations of such models into formal notations.
COURSE DESCRIPTIONS

SWEN 646 Software Design and Implementation (3)  
(Formerly MSWE 646.) A guide for the transition from programming-in-the-small to programming-in-the-large. Software development processes and the role of design as applied in those processes are discussed. Review covers major design methods and available computer-aided software engineering (CASE) tools, the proper application of design methods, and techniques for estimating the magnitude of the development effort. Strengths and weaknesses of the development methods are covered, along with traceability to requirements and code, are examined.

SWEN 647 Software Verification and Validation (3)  
(Formerly MSWE 647.) A study of the evaluation of software for correctness, efficiency, performance, and reliability. Skills covered include program proving, code inspection, unit-level testing, and system-level analysis. The difficulty and cost of some types of analysis and the need for automation of tedious tasks are examined. Problem-solving skills are stressed, especially in analysis of code. The textbook world is contrasted with the real world using case studies and personal experiences. Industry attitudes toward reliability and performance are also discussed.

SWEN 648 Software Maintenance (3)  
(Formerly MSWE 648.) A guide for the transition from programming for the short term to programming for the long term. The role of creation and maintenance in the software development process, as well as analysis and implementation of a software design, is reviewed. Topics also include the need for software maintenance and evolution, software maintenance process and performance issues, planning for extended software life, and effective mechanisms to control software change.

SWEN 670 Software Engineering Project (3)  
(Formerly MSWE 617.) A comprehensive examination of the tools, skills, and techniques of software engineering and their application. Completion of a major team project is designed to integrate knowledge and skills gained through previous study and provide experience of the constraints commonly experienced in industry (scheduling, vagueness of clients). Project requires forming teams (organization) and scheduling work to meet the deadlines imposed by the contract (syllabus).

TLMN (Telecommunications Management)  

TLMN 602 Telecommunications Industry: Structure and Environment (3)  
A study of major technological, legal, and regulatory developments (national and international) that have molded the structure of the current telecommunications industry. Topics include early legislation, the regulated monopoly, antitrust, divestiture, and recent legislation that has led to the current industry environment of competition and incipient integration of different industry segments. The roles of various national and international institutions in shaping the telecommunications industry are discussed.

TLMN 623 Telecommunications Networks (3)  
A study of computer networks and telecommunications functionality, characteristics, and configurations. Recent advances in standardization, internetworking, and deployment of LANs (local area networks), MANs (metropolitan area networks), and WANs (wide area networks) are examined. Topics include network topologies; protocols; architectures; and current and emerging protocols such as asynchronous transfer mode (ATM), 10 gigabit Ethernet, and the Open Systems Interconnect (OSI) Reference Model. Emphasis is on emerging trends in telecommunications, network technologies, and services. Discussion also covers strategies for network planning, implementation, management, and security.

TLMN 630 Satellite Communication Systems (3)  
An analysis of issues surrounding the design and use of satellite communications systems. Topics include satellite system characteristics such as type, class (bandwidth, standards, and availability), applications, interfaces, traffic patterns, network installation, performance criteria, hardware, and cost. Current and planned satellite communications are examined and compared to future needs and technologies.

TLMN 641 Network Management and Design (3)  
A study of techniques that network managers can utilize to maintain and improve the performance of a telecommunications network. Network management systems are defined and explained. A description of how software package programs can monitor real-time performance of a network to identify problems is provided. Emphasis is on the five tasks traditionally involved with network management (fault management, configuration management, performance management, security management, and accounting management). Examples of current specific network management products are reviewed. Discussion also covers how the performance data gathered from monitoring can be archived and used later as an input when decisions are made on changes in the network architecture. Network design is studied for the development of a new network architecture when only user requirements are known.
TLMN 645 Wireless Telecommunications Systems (3)
A review of wireless telecommunications systems from microcell to global infrastructures. Emphasis is on the technology, applications, and limitations of these systems, which have become an essential element of the world information infrastructure. Topics include cellular communication principles, coding, antenna and propagation effects, channel access schemes, traffic engineering, and wireless network design, as well as terrestrial systems such as cellular, personal communication services (PCS), dispatch, wireless local area networks (LANs), and wireless data systems. Discussion also covers market trends, regulations, and standards. Students assess the role of wireless systems in comparison with other telecommunications alternatives available to organizations.

TLMN 670 Capstone Course in Telecommunications Management (3)
An examination of emerging telecommunication technologies and their applications. Topics vary each term and may include wireless security, voice over internet protocol, private branch exchanges (PBXs), or ad hoc (peer to peer) wireless local area networks.

TMAN (Technology Management)

TMAN 600 Foundations of Management and Technology (6)
A one-semester study of the foundations of management and the principles of managing technology in organizations. Topics include various organizational factors that affect efficiency and effectiveness and global competitiveness, such as group behavior, organization structure, environmental factors, international competitiveness, organization culture, change management, decision making, team effectiveness, values, conflict, power, and politics. Ethics and the socially responsible environment within which managers must operate are stressed through readings and practical applications. Discussion also covers key concepts of technology management and the role of technology managers in all sectors of the workforce. Focus is on examining technological innovation from a historical perspective, including its impact on the economy; public policy; global competitiveness; and organizational strategy, effectiveness, and efficiency. Students who receive credit for TMAN 600 may not receive credit for TMAN 611 or TMAN 633.

TMAN 611 Principles of Technology Management (3)
(Formerly TMAN 601.) An introduction to key concepts in technology management and the role of technology managers in both private- and public-sector organizations. How organizational entities can be structured and managed to respond effectively to dynamic changes caused by technology and international competition is examined. The key cycles in the development of technology—including their impact on the economy, industrial sectors, and organizational strategy and survival—are covered from a historical perspective. Management is examined from both a process and system perspective. The major technical, social, legal, and ethical issues in innovating and implementing technology are presented.

TMAN 614 Strategic Management of Technology and Innovation (3)
A study of the effective management of technical organizations in an increasingly competitive, rapidly changing, global environment. A coherent process for the formulation, implementation, and assessment of business strategy is provided. A historical framework for the birth, growth, maturation, and decline of business innovation is presented. Findings and recommendations on contemporary businesses and industrial sectors are reported. Technology management is examined within a strategic framework that integrates strategy setting, implementation, and assessment processes; historical analogies/cases of business innovation through maturation lifecycle; and application of lessons learned in contemporary business cases in business, government, and nonprofit organizations.

TMAN 621 Systems Analysis and Operations Research (3)
An introduction to the fundamentals of systems analysis and operations research. The goal is to acquire an understanding of the systems view of a product, service, or process to include a generic representation of its elements and dynamics. Emphasis is on the skills, tools, and methodologies needed to quantitatively analyze and optimize systems and to make decisions as technology managers. State-of-the-art analytical tools and quantitative methods, including computer-based solutions, are discussed. Topics include decision theory, linear programming, transportation problems, network analysis, game theory, reliability theory, cost estimating, and expert systems.
**TMAN 625 Economics and Financial Analysis for Technology Managers (3)**

A study of the financial tools managers use to find answers to four important questions: What is the financial condition of the firm? What long-term investment should the firm make? How can the money be raised for the investments? And how will the firm meet its daily financial requirements? Topics include accounting statements, tax implications, types of costs, profit recognition, financial markets, investment decision tools, net present value, free cash flows, project financing, valuation of firms, risk-return, cost of capital, long-term financing, short-term financing, and equity financing for entrepreneurs. Discussion also covers mergers and acquisition activities, governance and ethics, and international aspects. Business cases from contemporary firms and readings relevant to technology management are used to illustrate the application of financial concepts.

**TMAN 632 Organizational Performance Management (3)**

An overview of the most successful strategies and approaches for achieving a high-performing organization, based on the latest research findings and the examples of successful global organizations. Topics include organizational capabilities in managing costs, ensuring quality in products and services, and enhancing customer satisfaction, as well as performance capabilities (such as organizational values, adaptability, flexibility, agility, responsiveness, and decisiveness) that enable organizations to anticipate and respond to change. The Baldrige Criteria for Performance Excellence are examined as assessment tools for achieving desired organizational capabilities. Discussion also covers specific approaches that contribute to high performance and organizational effectiveness, such as customer relationship management, supply chain management, Six Sigma methodology, and other process improvement tools. Successful applications of these strategies and approaches are illustrated.

**TMAN 633 Managing People in Technology-Based Organizations (3)**

An overview of the management of three levels of behavior in organizations: individual employee behavior, group behavior, and organizational behavior. Topics include emerging organizational behavior issues such as knowledge management, work design, virtual organizations and teams, contingent workforce management, creativity/innovation, sociotechnical systems, the development of learning and boundaryless organizations, emotional intelligence, the global workforce, and the formulation of pay/retention strategies. Contemporary organizational behavior theories are linked to their applications in technology-based organizations through the use of real-life examples, case studies, and current events.

**UCSP (Special Topics)**

**UCSP 611 Introduction to Graduate Library Research Skills (0)**

(Required within the first 6 credits of graduate study for all new graduate students and all inactive students who reapply for admission.) An overview of online library and information resources material that is critical for 21st-century managers. An in-depth introduction to the library research process and the tools necessary to succeed in graduate study are provided. Emphasis is on the efficient and effective use of a variety of electronic retrieval systems, including the online catalog of the University System of Maryland and affiliated institutions (USMAI), UMUC’s subscription databases, and the Web. Discipline-specific research is conducted in order to gain experience in formulating viable research questions, selecting the most appropriate investigative methods and resources for research, locating relevant research materials, evaluating the scholarly value of sources, and effectively citing sources.

**UCSP 620 Financial Accounting (0)**

(Recommended as preparation for MGMT 640 for students who lack a background in accounting and finance.) A basic study of financial accounting, encompassing basic financial concepts and their use in analyzing financial statements. The financial statements of actual companies are analyzed and the process by which accounting principles are developed is explored. Emphasis is on gaining an appreciation for how financial accounting information can be used to evaluate the economic performance of companies.

**UCSP 621 Economics (0)**

(Recommended as preparation for MGMT 640 for students who lack a background in economics.) An overview of both the microeconomic issues of supply and demand for individual companies and products and macroeconomic issues concerning inflation, unemployment, and recession for the economy as a whole. Basic economic concepts such as opportunities cost, comparative advantage, economic efficiency, and the time value of money are explored in the context of business, government, and personal situations.

**UCSP 630 Introduction to Research Methods (0)**

(Recommended as preparation for MGMT 650 for students who lack a background in statistics.) A presentation of basic research techniques and methodologies used in organizational research and evaluation studies to make business decisions. Focus is on applying basic research techniques to assess the performance of individuals, work groups, and organizations. Topics include principles of good data collection, presentation of data in tables and charts, summary and description of numerical data, basic probability and discrete estimation, the fundamentals of hypothesis testing, and the use of existing research-based materials to solve business problems. Discussion emphasizes basic approaches and beginning skills necessary to evaluate research materials and their use in decision making.
XMBA (Business Administration—Executive)

XMBA 603 Marketing, Entrepreneurship, and New Product Development (6)
A study of business development strategies from the perspective of customer needs and preferences. Market research approaches, product and service design processes and life cycles are introduced. Workshops, team projects, and case studies, are used to develop effective marketing programs that recognize the increasing importance of electronic commerce as a distribution channel.

XMBA 604 Technology and Operations Management (6)
An overview of the latest information technologies and operations management techniques that enable an organization to operate around the world and around the clock. Tools that managers use to measure operational efficiency and effectiveness are introduced, including statistical process control, decision trees, forecasting techniques, expert systems, and organizational benchmarking. Effective project management techniques, important to introducing new products and analyzing and improving an organization's processes, are introduced.

XMBA 605 Financial Systems and Management Accounting (6)
A study of economic decision making and the techniques and tools managers use to analyze the financial performance of their organizations. Performance measurement techniques include economic value added, the balanced scorecard, open-book management, and activity-based costing. The theory of constraints is introduced to analyze the value an organization provides to the customer. Other tools are used to value intellectual property and whole businesses for purposes of joint ventures, mergers, or acquisitions. In assessing the broader economic environment of an organization, participants analyze the changing global economy, including the evolution of financial markets in response to rapidly expanding worldwide investment opportunities.

XMBA 606 International Business, Trade, and Business Law (6)
A study of how various strategic facets must be managed in the global context of trading and regulatory systems and the growing concerns about national competitive advantage. The impact on corporate decision making of laws, regulatory structures, and public policies at the local, state, national, and international levels are discussed. In addressing national competitive advantage, participants consider the impact of technology innovation, international trade, and business and antitrust laws on business organizations.

XMBA 607 Strategy and Capstone Project (6)
Participants are teamed with sponsoring organizations to develop a strategic action plan that integrates management techniques and methodologies covered in the previous seminars. Focus on strategic models, strategy formulation and implementation, organizational assessment, and the creation of business plans, leads to insight into strategic thinking and practical application. Working in teams, participants develop business plans for their sponsoring organizations that may include a new market entry strategy, a product development project, or an organizational assessment with appropriate change strategy.
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Graduate School
General Contact Information
Students who need assistance or other information should call 800-888-UMUC (8682) for all their student needs. Graduate academic advisors are available to help students make decisions about courses and degree or certificate programs. Students may also call the number of UMUC locations (listed on p. 125) to schedule in-person academic advising.

Graduate Library and Writing Courses
Students taking COMM 600 Academic Writing for Graduate Students or the noncredit course UCSP 611 Introduction to Graduate Library Research Skills may reach one of the following individuals for assistance and information.

COMM 600 ACADEMIC WRITING
FOR GRADUATE STUDENTS
Academic Director
Andrew J. Cavanaugh, MA
acavanaugh@umuc.edu
240-582-2830

UCSP 611 INTRODUCTION TO LIBRARY RESEARCH SKILLS
Course Manager
Julie Arnold, MLS
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301-985-7403
### CONTACT INFORMATION

**Other Important Phone Numbers**

<table>
<thead>
<tr>
<th>Service</th>
<th>Phone Number</th>
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<tbody>
<tr>
<td>Bookstores</td>
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<tr>
<td>MBS Direct</td>
<td>800-325-3252</td>
</tr>
<tr>
<td>University Book Center/ Barnes &amp; Noble</td>
<td>800-434-6621</td>
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<tr>
<td>Bursar's Office (Student Accounts)</td>
<td>301-985-7404</td>
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<tr>
<td>Career Services</td>
<td>301-985-6785</td>
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<tr>
<td>Disabled Student Services</td>
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<tr>
<td>Main Number</td>
<td>301-985-7930</td>
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<tr>
<td>Hearing-Impaired TTY</td>
<td>301-985-7466</td>
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<tr>
<td>Financial Aid</td>
<td>301-985-7510</td>
</tr>
<tr>
<td>Finance Office</td>
<td>301-985-5500</td>
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<tr>
<td>Grades, Records, Transcripts</td>
<td>301-985-7236</td>
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<tr>
<td>Information and Library Services</td>
<td>301-985-7209</td>
</tr>
<tr>
<td>International Student Admissions</td>
<td>301-985-7155</td>
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<tr>
<td>IRIS (Phone Registration)</td>
<td>800-584-9413</td>
</tr>
<tr>
<td>Literature Requests (e.g., catalogs, schedules of classes, financial aid brochure)</td>
<td>800-888-UMUC (8682)</td>
</tr>
<tr>
<td>National Leadership Institute</td>
<td>301-985-7195</td>
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<tr>
<td>Registrar</td>
<td>301-985-7236</td>
</tr>
<tr>
<td>UMUC 360 Support (for MyUMUC and WebTycho)</td>
<td>888-360-UMUC (8682)</td>
</tr>
</tbody>
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**UMUC Graduate Instructional Sites**

- **Adelphi (UMUC Headquarters) and UMCP Campus**
  3501 University Boulevard East
  Adelphi, MD 20783
  800-888-UMUC (8682)

- **Dorsey Station**
  6865 Deerpath Road
  Elkridge, MD 21075
  443-459-3500

- **Frederick/National Cancer Institute at Fort Detrick**
  1520 Freedman Drive
  Fort Detrick, MD 21702
  301-738-6090

- **Shady Grove**
  9640 Gudelsky Drive
  Rockville, MD 20850
  301-738-6090

- **Waldorf Center for Higher Education**
  3261 Old Washington Road
  Waldorf, MD 20602
  301-632-2900
General Information and Orientation

Before the beginning of each academic session, UMUC holds information sessions online and in the Maryland area for new and prospective students. An orientation to graduate study is also held annually at UMUC’s Adelphi headquarters before the fall session. 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 during the on-site open houses. An online orientation to graduate study at UMUC is also available at www.umuc.edu/grad/orientation.

For general information or to be directed to specific offices, students may call 800-888-UMUC (8682). Phone representatives are available for general information from 6 a.m. to 10 p.m., Monday through Saturday. Most UMUC offices are open weekdays from 8:30 a.m. to 5 p.m. eastern time.

Admission

Admission Requirements

For master’s degree and certificate programs, most applicants who have graduated from a regionally accredited degree-granting university or college are eligible for admission. Transcripts are required, but Graduate Record Examination (GRE) or Graduate Management Admission Test (GMAT) scores are not. (Information on optional submission of GMAT scores for enrollment in the MBA program is provided on p. 11.) Some graduate programs also require the submission of additional information before an admission decision can be made (more details are provided under individual program descriptions).

Executive Programs require five years of management experience in addition to the above (more details are on p. 54).

To be eligible to apply for the doctoral program, students must have a master’s degree from a regionally accredited college or university with a grade point average of at least 3.20 on a 4.00 scale before the application deadline (or permission of the department) and at least seven years of professional experience. Since admission to the doctoral program is competitive, prospective students may wish to take the GMAT or GRE to enhance their candidacy.

Admission Procedures

Applicants for graduate certificate and master’s degree programs must complete and submit the graduate admission application, pay the nonrefundable fee, and provide an official transcript indicating completion of a bachelor’s (or higher) degree from a regionally accredited degree-granting university or college. Applications for admission are accepted throughout the year.

Information on documentation required for admission to the doctoral program or Executive Programs is provided on pp. 10 and 54. Doctoral applicants should also visit www.umuc.edu/grad/dm for further details and application deadlines. The doctoral program office may be contacted at 800-888-UMUC, ext. 6745.

Students may apply to all UMUC graduate programs online via MyUMUC at https://my.umuc.edu.

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 in the section on University Policies on p. 156. Information on tuition and fees may be found on p. 118.

Readmission

Students who have not enrolled in graduate classes at UMUC for more than a two-year period must complete a new application for admission.

Students who were academically dismissed from the Graduate School of Management and Technology will not be considered for readmission.

International Applicants

To be considered for admission, international students must present

- Official documents indicating successful completion of the equivalent of a regionally accredited U.S. bachelor’s degree.

Applicants educated in countries other than the United States must have their official transcripts evaluated by an independent evaluation service. The evaluation organization will send a copy of the evaluation both to the applicant and to the Graduate School of Management and Technology. UMUC accepts credit evaluations from any National Association of Credential Evaluation Services (NACES)–approved organization, including World Education Services (WES), and the American Association of Collegiate Registrars and Admissions Officers (AACRAO). A list of NACES-approved agencies is available at www.naces.org/members.htm. Applicants may access AACRAO request forms online at http://www.aacrao.org/international or may contact the organization by phone at 202-296-3359 or by e-mail at oies@aacrao.org.
ADMISSION AND ENROLLMENT

• Proof of English language proficiency.
  Applicants who have not received a baccalaureate degree from an English-speaking country must demonstrate English language proficiency to be eligible for admission. (A complete list of countries recognized as English-speaking is available online at www.umuc.edu/students/international.) These applicants may submit
  – A minimum TOEFL (Test of English as a Foreign Language) score of 575 on the written version, 233 on the computer version, or 90 on the Internet version and a minimum Test of Written English (TWE) score of 4 (unless the Internet-based TOEFL is submitted—then no TWE is required);
  or
  – A minimum score of 7 on the IELTS (International English Language Testing System), including the academic writing and academic reading modules.

Applicants must arrange to have official score reports sent directly from the testing agency to the Graduate School of Management and Technology. The TOEFL score recovery code for UMUC is 5804.

• Documentation of residency status.
  Applicants must provide a photocopy (front and back) of either a permanent residency card or the first page and visa page of a valid passport and Form I-94.

International students seeking Form I-20 must be granted admission three months before the session start date to register for classes. Merely providing these documents does not ensure admission. An interview may also be required. The official transcript evaluation must be submitted and evaluated before admission is considered.

Restrictions

Students may be admitted to only one institution in the University System of Maryland at any one time. Students may be admitted as either graduates or undergraduates, but no one may hold both classifications simultaneously. A student’s most recent application for admission invalidates any previous admission.

Students may be admitted to only one graduate program at any time. Application for admission to a second graduate program is not permitted until notification of resignation has been presented to the first program. Students admitted to any other graduate program in the University System of Maryland must notify UMUC. Students retain active status for two years (six consecutive sessions) even without being registered in the program. However, after two years without a completed graduate course, students must submit a new application.

Note: Graduate students may take both graduate and undergraduate courses concurrently.

Registration

Ways to Register

Registration begins each session as soon as the class schedule becomes available on the Web and continues until the day classes begin. Students should check the current Graduate Schedule of Classes for the deadlines for registration.

Students in some programs (Executive Programs and the Master of Business Administration) must register through the program office for most courses.

UMUC offers five ways to register for most courses: online via MyUMUC, by phone via the Interactive Registration and Information System (IRIS), by mail, by fax, and on-site.

ONLINE VIA MyUMUC

Students may register online at https://my.umuc.edu. If a student has questions regarding confirmation of the registration, the student should contact Graduate Advising.

BY TELEPHONE VIA IRIS

Students are eligible to register by phone via the Interactive Registration and Information System (IRIS) if they have already been admitted to UMUC as a graduate student. (Note: Former students who have not registered for courses within the last two years must first be readmitted.) Through IRIS, students may register by entering all pertinent information via their touch-tone telephone. IRIS provides immediate feedback on course availability and the student’s registration.

Students may call IRIS at 800-584-9413 daily from 6 a.m. to 9 p.m. eastern time.

BY MAIL

Students may mail their registration to Graduate Advising, University of Maryland University College, 3501 University Boulevard East, Adelphi, MD 20783. Forms are available online at www.umuc.edu/register and in the Graduate Schedule of Classes.
**BY FAX**

Students may fax their registration to 301-985-7175. Forms are available in the Graduate Schedule of Classes and online at www.umuc.edu/register.

Students who have employer-provided tuition must be sure to fax their registration and employer contract at the same time. Any fees not covered by the contract must be charged to American Express, Discover, MasterCard, or Visa.

**ON-SITE**

Walk-in admission and registration is held in the Student and Faculty Services Center in Adelphi, Maryland, and at a number of other locations in the Baltimore-Washington metropolitan area. Students may register for any course offered (regardless of location or format) during regular office hours.

**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. Students can check on class availability by visiting MyUMUC at https://my.umuc.edu.

- If a space becomes available, the first student on the waiting list will automatically be registered for it, and the charge will appear on their account. An e-mail notification of the enrollment from the waiting list will be sent. If a space becomes available but the first student is ineligible to enroll in the class (for reasons such as failing to meet the prerequisites or being enrolled in a class that conflicts in time), the space will go to the next person on the waiting list.
- Students who no longer want a course should remove their name from the waiting list to prevent the possibility of an automatic enrollment.
- Students already enrolled in the maximum number of allowable credits (6 credits) who are on a waiting list for a third course will not be registered in the third course even if space becomes available in the class.
- Faculty members and academic advisors are not authorized to add students to a full class.

**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 receive a mark of W (described on p. 121). Graduate students must officially withdraw at least two weeks (14 days) before the final class.

Students may withdraw from a course by four methods:

- Students may access MyUMUC online at https://my.umuc.edu and follow the directions for dropping a course. The use of the student and personal identification numbers is considered official authorization for the withdrawal, which is effective immediately.
- Students may call IRIS at 800-584-9413 and follow the directions for dropping a course. The use of the student and personal identification numbers is considered an official “signature” authorizing the withdrawal, which is effective immediately.
- Students may complete a withdrawal form request to be processed by an advisor. The withdrawal becomes effective the date the form is filed with UMUC.
- Students may request in writing to withdraw from a course or courses. The letter should specify the course, course number, and section, and include the student’s full name, student ID number, and signature. The request should be addressed to Graduate Advising, University of Maryland University College, 3501 University Boulevard East, Adelphi, MD 20783. The postmark on the envelope becomes the official date of withdrawal. **Note:** Because the Graduate School of Management and Technology can only honor withdrawal requests actually received, it is recommended that students ask for a return receipt from the post office to ensure that delivery of the withdrawal will be acknowledged.

In all cases, the student should maintain a copy of the transaction for his or her records.

UMUC cannot accept withdrawals verbally over the telephone. Failure to withdraw in the required manner results in the forfeiture of any refund and may result in a failing grade. For financial aid recipients, failure to withdraw in the required manner may result in cancellation/reversal of financial aid rewards. It is recommended that the student contact a financial aid advisor before withdrawing to determine if or how this will affect his or her financial aid.
Financial Information

Tuition and Fees
UMUC students are expected to make payment at the time of registration. If a student’s payment is not received by the due date, he or she may be penalized by being disenrolled from courses or having his or her account balance transferred to the State Central Collections Unit.

Several payment options are available to UMUC students who are unable to make payment at the time of registration. To find out more about payment options, students should visit www.umuc.edu/paymentoptions.

Payment may be made by cash, check, money order, or American Express, Discover, MasterCard, or Visa credit cards. Checks should be payable to University of Maryland University College. Students who qualify for tuition assistance, financial aid, or veterans benefits should consult the appropriate sections.

Students interested in the monthly payment plan, administered by TuitionPay, should visit www.tuitionpay.com/umuc on the Web or call 800-635-0120.

CURRENT TUITION AND FEES
Tuition rates and fees are published each session in the Graduate 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 admission and graduation applications, makeup testing, technology, and transcripts. There is also a service charge for dishonored checks.

Refunds
The official date used to determine a refund is either the date the withdrawal form is hand-delivered to the Information Desk at the Student and Faculty Services Center, the date and time of the IRIS request, the date and time the change was made in MyUMUC, or the postmark date on a mailed request. The official date for federal financial aid recipients is the last date of class attendance as determined by federal regulations.

Note: Students in their first enrollment period with UMUC, who are receiving financial aid (grants, work-study, or loans) and withdraw from the institution (not merely from a course) before completing 60 percent of the enrollment period for which they have been charged, are subject to a new federal pro-rata refund policy. Financial aid advisors can provide further information.

REFUND FOR COURSE CANCELLATIONS
The university refunds 100 percent of tuition, technology, and registration fees for courses canceled by the university. The application fee is nonrefundable, even when a course is canceled.

REFUND FOR STUDENT WITHDRAWALS
Tuition is refunded as follows:
- 100% Withdrawal before the class start date
- 75% Withdrawal 1–13 calendar days after a class starts
- 50% Withdrawal 14–20 calendar days after a class starts
- 0% Withdrawal 21 or more calendar days after a class starts

Fees are nonrefundable, with the exception of technology fees, which are refundable before the first day of class. No refunds are given for technology fees or for tuition for noncredit courses after the official start date of class.

Note: This policy applies only to students not receiving federal financial aid.

Dishonored Checks
For each paper or electronic check returned to UMUC by the payer’s bank (whether because of insufficient funds, stopped payment, postdating, or drawing against uncollected items), UMUC assesses a service charge of $25 (over and above any service charges levied by the financial institution).

A student who stops payment on a check for tuition is thereby neither disenrolled nor relieved of responsibility for paying tuition and fees. Anyone whose checks for tuition or fees remain dishonored may be barred from classes.

Indebtedness to the University
Students who incur debts to UMUC must clear them to be permitted to register. Requests for 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.

The Board of Regents has authorized UMUC to charge students’ delinquent accounts for all collection costs incurred by UMUC. The normal collection fee is 17 percent plus attorney and/or court costs. Delinquent accounts are reported to a credit bureau.
Employer-Provided Tuition Assistance

If an employer is going to pay for part or all of a student’s tuition, at the time of registration the student must submit two copies of a document (purchase order, tuition assistance form, or contract on company letterhead) containing the following information:

- A specific description of types of fees and charges (such as tuition, application fee, or books) and the amount to be assumed by the employer
- The student’s name and student identification number
- The session covered by the document
- The billing address
- The signature and phone number of the authorizing official

A student who does not have an authorizing document at the time of registration must pay the bill in full and arrange for direct reimbursement from the employer. UMUC cannot issue refunds for authorizing documents submitted after registration.

Documents that restrict payment or are in any way conditional will not be accepted. If the employer does not pay UMUC, the student is responsible for payment.

Monthly Tuition Payment Plan

UMUC offers a cost-effective alternative for students who are budgeting for college tuition: an interest-free, monthly tuition-payment plan. This plan allows students to spread all or part of their tuition bills into monthly installments on an academic session basis. All UMUC students are eligible to participate in the payment plan, regardless of financial need. More complete information is available online at www.umuc.edu/studentaccounts/tuition/payment_options.shtml.
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/I/fail method is restricted to certain specified courses. Any course may be audited. Regulations for each are given in the following paragraphs.

<table>
<thead>
<tr>
<th>GRADE OR MARK</th>
<th>INTERPRETATION</th>
<th>QUALITY POINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Excellent</td>
<td>4</td>
</tr>
<tr>
<td>B</td>
<td>Good</td>
<td>3</td>
</tr>
<tr>
<td>C</td>
<td>Below standards</td>
<td>2</td>
</tr>
<tr>
<td>F</td>
<td>Failure</td>
<td>0</td>
</tr>
<tr>
<td>FN</td>
<td>Failure for nonattendance</td>
<td>0</td>
</tr>
<tr>
<td>G</td>
<td>Grade pending</td>
<td>0</td>
</tr>
<tr>
<td>P</td>
<td>Passing</td>
<td>0</td>
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<tr>
<td>S</td>
<td>Satisfactory</td>
<td>0</td>
</tr>
<tr>
<td>I</td>
<td>Incomplete</td>
<td>0</td>
</tr>
<tr>
<td>AU</td>
<td>Audit</td>
<td>0</td>
</tr>
<tr>
<td>W</td>
<td>Withdrawal</td>
<td>0</td>
</tr>
</tbody>
</table>

Standard

Unless students choose the 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, or F on the basis of their performance in meeting the requirements of each course.

Pass/Fail

Noncredit courses, such as the required graduate library skills course, are graded on a pass/fail basis. Students may not choose to take other graduate courses on a pass/fail basis.

Satisfactory/Incomplete/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 mark of incomplete (I) earns no credit and is not included in computing grade point averages, but is included in computing the course completion rate (explained on p. 159). 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 they have been admitted. Students must indicate this intention when they register. Students may request a change from credit to audit status anytime before the end of the second week of classes.

Audited courses are listed on the permanent record, with the notation AU. No letter grade is given for audited courses, nor are credits earned. Students receiving financial aid should check with a financial aid advisor before selecting audit as a grading option as this may affect financial aid.

Grades and Marks

The Grade of A: Excellent

Only students who demonstrate exceptional comprehension and application of the course subject matter merit an A.

The Grade of B: Good

The grade of B represents the benchmark for the Graduate School of Management and Technology. It indicates that the student has demonstrated competency in the subject matter of the course. For example, the student has fulfilled all course requirements on time, has a clear grasp of the full range of course materials and concepts, and is able to present and apply these materials and concepts in clear, reasoned, well-organized, and grammatically correct responses, whether written or oral.

The Grade of C: Below Standards

The grade of C indicates that the student has passed the course. However, the grade of C is not considered to meet overall standards for graduate work. Students should refer to Academic Standards for further information on the implications of a grade of C.

The Grade of F: Failure

The grade of F means a failure to satisfy the minimum requirements of a course. Although it carries no credit, it is included in calculating the grade point average. If applicable, a student assigned the grade of F must register again for the course, pay the applicable fees, repeat the course, and earn a passing grade in order to receive credit for that course.

The Grade of FN: Failure for Nonattendance

The grade of FN means a failure in the course because the student has not attended or participated in course assignments and activities. It is assigned when the student ceases to attend class but has not officially withdrawn. If applicable, a student assigned the grade of FN must register again for the course, pay the appli-
cable fees, repeat the course, and earn a passing grade in order to receive credit for that course.

The Grade of P: Passing
Since the grade of P is only awarded for noncredit graduate courses, it is not included in calculating the grade point average. It does, however, appear on the permanent record.

The Grade of S: Satisfactory
The grade of S is only awarded for select courses. Although the grade of S confers credit and appears on the permanent record, courses graded S are not used in determining grade point averages.

The Mark of G: Grade Pending
The mark of G is an exceptional and temporary administrative mark given only when the final grade in the course is under review. It is not the same as a mark of Incomplete.

The Mark of I: Incomplete
The grade of I (Incomplete) is an exception and is given only to students whose completed coursework has been qualitatively satisfactory, but who have been unable to complete all course requirements because of illness or other extenuating circumstances beyond their control. To be eligible for an I, students must have completed 60 percent or more of the course requirements with a grade of B or better. Students must request an I from their faculty member before the end of the session. Faculty, however, are not required to grant the request. Students with a mark of I must arrange fulfillment of course responsibilities with their teachers in order to receive credit. The teacher must set a deadline within four months of the last day for the session in which the course occurred. Marks of I are automatically converted to F after four months.

The Mark of W: Withdrawal
Students who officially withdraw from a course receive a mark of W. This mark appears on the permanent record unless withdrawal is completed before a course begins. For purposes of financial aid, the mark of W is counted as attempted hours. It is not used in determining grade point averages.

The withdrawal process is described on p. 117.

Computing the GPA
The grade point average is calculated using the quality points assigned to each grade or mark (chart on p. 120). 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, or F was received.

Changes in Grade
Teachers may revise a grade previously assigned if a student’s grade has been miscalculated or a mark of I has been submitted and must be changed. Any revision 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 financial aid, 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.

Scholastic Recognition
Academic Honor Society
As the oldest and most selective of the nation’s honor societies, Phi Kappa Phi promotes the pursuit of excellence in all fields of higher education. It recognizes the outstanding achievements of students, faculty, and others through election to membership and through awards for distinguished scholarly achievement. To qualify, graduate students must be in the final session of their degree coursework and in the upper 10 percent of their graduating class. Additional information on the Phi Kappa Phi chapter can be found at www.umpkp.org.
Presidential Management Fellows Program
The Graduate School of Management and Technology participates in the Presidential Management Fellows (PMF) Program, a prestigious leadership development program that is a pathway to a career with the executive branch of the federal government. The program considers graduating master's and doctoral degree candidates who demonstrate a strong commitment to a career in public service. Student candidates to the program are nominated by UMUC; those selected participate in a fellowship working with federal agencies in locations throughout the country. The PMF Program operates under the auspices of the federal Office of Personnel Management. To learn about nomination criteria, students should contact Student Relations at 301-985-7200.

Program Completion Requirements
Students are responsible for applying for graduation (for degrees and/or certificates) by completing and submitting the appropriate diploma application and fees by the deadlines published on the UMUC Web site. The award of degrees and certificates is conditional upon satisfactory completion of all program requirements and compliance with all UMUC policies. Graduation clearance will not be granted for a student with outstanding debt to UMUC or any outstanding misconduct charges or unsatisfied sanction terms. Regardless of GPA, no grade of F can remain on the graduate record at the time a student applies for graduation. Individual programs may have additional requirements that must be met before graduation clearance can be granted.

Time Limit for Degrees and Certificates
All requirements established for the completion of a graduate degree or certificate program must be fulfilled within seven consecutive years (five years from beginning AMBA 610 or EMBA 610 for the Master of Business Administration). This regulation includes courses transferred from other institutions. Any transfer of credit must be completed within the five- or seven-year time frame applied toward the degree or certificate program.

Doctoral Program Standards
The Doctor of Management (DM) program has requirements in addition to those listed at left for academic standing. In addition to a minimum GPA of 3.2, a DM student who receives a grade of C in a course must repeat that course in the next session of enrollment and earn a grade of B or better. The option to repeat a course may be exercised only once. A DM student who receives a grade of F or a second grade of C is dismissed from the DM program, regardless of GPA.

Degree Requirements
In general, the UMUC degree and certificate requirements that apply to a student are those that were in effect when the student began continuous enrollment in the program. If a 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, students must be or have been enrolled at UMUC and have had no more than two years of nonenrollment. When a continuously enrolled student chooses to change his or her program, the student may be subject to the requirements in effect at the time of the change.
Responsibilities of the Student

Attendance
Students are expected to attend all on-site or online classes and any related activities regularly and punctually. Attendance in itself is not a requirement for successfully completing a course.

Students who are absent from class retain responsibility for completing any missed coursework, as indicated in the course outline. Students are also responsible for obtaining information about each class session, including any announcements and assignments they missed. Failure of the student to complete any required coursework as scheduled may adversely affect the grade earned. Faculty are not expected to repeat material that a student missed because of absence.

Students who are not officially registered for classes are not permitted to sit in on classes.

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 (USM) policy “Faculty, Student, and Institutional Rights and Responsibilities for Academic Integrity.” At UMUC, faculty members are expected to establish classroom environments conducive to the maintenance of academic integrity by giving students a complete syllabus describing the course and its requirements, by grading submitted work promptly and adequately, and by arranging appropriate testing conditions, including having faculty members monitor examinations given in class. Students at UMUC are expected to conduct themselves in a manner that will contribute to the maintenance of academic integrity. The USM policy is found at www.usmd.edu/regents/bylaws/SectionIII.

Academic dishonesty is the failure to maintain academic integrity. Academic dishonesty includes but is not limited to cheating; fabrication; bribery offered for grades, transcripts, or diplomas; obtaining or giving aid on an examination; having unauthorized prior knowledge of an examination; doing work for another student; presenting another student’s work as one’s own; and plagiarism.

Plagiarism is the presentation of another person’s idea or product as one’s own. Plagiarism includes but is not limited to the following: copying verbatim all or part of another’s written work; using phrases, charts, figures, illustrations, or mathematical or scientific solutions without citing the source; paraphrasing ideas, conclusions, or research without citing the source; or using all or part of a literary plot, poem, film, musical score, or other artistic product without attributing the work to its creator.

Students can avoid unintentional plagiarism by carefully following accepted scholarly practices. Notes taken for papers and research projects should accurately record sources of material to be cited, quoted, paraphrased, or summarized, and papers and research projects should acknowledge these sources in references.

Additional information on UMUC’s policy on Academic Dishonesty and Plagiarism may be viewed at www.umuc.edu/policy.

Examinations
The student is responsible for obtaining information about quiz and examination schedules and policies.

Make-up examinations and tests may be given to students who for valid reasons are unable to take exams at the scheduled time. Teachers are not required to offer make-up examinations because of a student’s absence unless the student can present evidence that it was caused by unavoidable circumstances or occurred on a religious holiday.* In such cases, an examination may be rescheduled for the mutual convenience of student and teacher and must cover only the material for which the student was originally responsible. Such a rescheduling must not cause a conflict with the student’s other classes.

Course Load
Students are advised to limit their course loads to conform with the demands of their employment and the time they have to prepare for class. A normal load for full-time students, or for those employed no more than 20 hours a week, is 9 credits per session. For half-time attendance, students must be enrolled for 6 credits in the fall and spring sessions and 3 credits in the summer session. Fully employed students are limited to a maximum of 6 credits in the fall, spring, and summer sessions.

Full-time students who are not employed during the summer or who work fewer than 20 hours a week (except those in the Master of Business Administration program) may ask to take additional courses by submitting a request in writing to Graduate Advising. Requests for exceptions must be made at least one month before the beginning of the session.

*The UMUC policy on religious holidays is stated in the chapter on University Policies.
To be eligible for a course overload, a student must

• Be a degree- or certificate-seeking student.
• Be employed no more than 20 hours a week.
• Have no previous grades of C or F.
• Have no current marks of I.
• Have never been on academic probation.

Grievance/Appeal Procedure

Students having legitimate complaints about Graduate School of Management and Technology faculty, staff members, academic departments, or administrative units should contact their program director. For information on the procedure to file a formal appeal or grievance about the actions of a faculty or administrative staff member, students should contact Student Relations, Graduate School of Management and Technology, at 800-888-UMUC, ext. 7200, or graduateschool@umuc.edu. More information is available online at www.umuc.edu/policy/aa13070.shtml and www.umuc.edu/policy/aa13080.shtml.

Connectivity and Computer Literacy

To take full advantage of the Graduate School of Management and Technology’s educational offerings, students must own or have access to a personal computer and have access to the Internet.

All graduate students must be able to reach their fellow students, faculty, and the university via e-mail. It is imperative that students update their e-mail address through MyUMUC at https://my.umuc.edu. Students who do not have a personal e-mail account may create one by following the directions provided on the Web at www.umuc.edu/SuppSer/ITHosts/itfaq.shtml. In some classes, students may be required to participate in synchronous computer-based class discussions and study group activities.

All graduate students are expected to have a working knowledge of, and access to, a basic word processing program such as Microsoft Word, a spreadsheet program such as Microsoft Excel, and Internet electronic mail services. Knowledge of Microsoft Windows and Internet information services such as the World Wide Web is also necessary.

Applicants and students who require further training in the use of Internet services and basic software packages may wish to consult the UMUC Undergraduate Schedule of Classes or speak to an undergraduate advisor regarding appropriate classes. The schedule may be obtained by calling 800-888-UMUC, and advisors may be reached at 800-888-UMUC, ext. 7939. Schedules and catalogs are also available for download on the UMUC Web site.

Code of Student Conduct

In accordance with the Board of Regents Policy V–1.00 Policy on Student Affairs, approved on January 11, 1990, disciplinary regulations are set forth in writing to give students general notice of prohibited conduct. UMUC reserves the right to take appropriate action to protect the safety and well-being of the UMUC community.

Students may be accountable to both civil authorities and to UMUC for acts that constitute violations of law and of this code. Disciplinary action at UMUC will normally go forward pending criminal proceedings and will not be subject to challenge on the ground that criminal charges involving the same incident have been dismissed or reduced.

To encourage the development and growth of a supportive and respectful academic environment for all students, faculty, and staff, UMUC has created the Code of Civility, which is available at www.umuc.edu/students/civility.html and in UMUC publications.

In every case of alleged Code of Conduct violation, the burden of proof rests with the complainant who must establish the guilt of the person accused by clear and convincing evidence. In cases where the complainant wishes to remain anonymous, the burden of proof rests with the administrator.

Additional information on the UMUC Code of Student Conduct may be found at www.umuc.edu/policy/stud15100.shtml.
SERVICES AND RESOURCES

Availability of Services

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. A number of offices are responsible for the delivery of these services, including Career Services and the offices of Enrollment Management, Financial Aid, Information and Library Services, and Information Technology.

Among these, the Office of Student Affairs and the Office of Enrollment Management (which includes Graduate Advising) 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.

All regional sites offer graduate services. In the Maryland area, services are available at the following locations:

Adelphi (UMUC Headquarters)
gradinfo@umuc.edu
Phone 800-888-UMUC (8682); Fax 301-985-7175

Aberdeen Proving Ground
Phone 410-272-8269

Andrews Air Force Base
Phone 301-981-3123

Arundel Mills
Phone 410-777-1882

Bethesda National Naval Medical Center
Phone 301-654-1377

Bolling Air Force Base
Phone 202-563-3611

Dorsey Station
Phone 443-459-3500

Fort Belvoir
Phone 703-781-0059

Fort Detrick
Phone 301-738-6090

Fort Meade
Phone 410-551-0431 or 301-621-9882

Fort Myer
Phone 202-563-3611

Henderson Hall, Navy Annex
Phone 202-563-3611

Laurel College Center
Phone 410-772-4162

Marine Corps Base Quantico
Phone 703-630-1543

Navy College at Anacostia
Phone 202-563-3611

Patuxent River Naval Air Station
Phone 301-737-3228

Shady Grove
Phone 301-738-6090

Southern Maryland Higher Education Center
Phone 301-737-3228

University System of Maryland at Hagerstown
Phone 240-527-2711

Waldorf Center for Higher Education
Phone 301-632-2900

Walter Reed Army Medical Center
Phone 202-782-3023
GENERAL INFORMATION

UMUC phone representatives are available Monday through Saturday, 6 a.m. to 10 p.m., at 800-888-UMUC (8682) to provide answers to general questions and help navigate UMUC’s Web site. Representatives can also make sure that callers are on the UMUC mailing list to receive upcoming class schedules and other important announcements.

ADMISSION ASSISTANCE

Enrollment specialists serve individuals who are inquiring about becoming UMUC students at some future time or are admitted but have not yet registered. They can help prospective students apply for admission, identify financial aid opportunities, plan their curriculum, and register for their first session of classes.

Enrollment specialists can also help qualified senior citizens apply for Golden Identification benefits. More information is on p. 127.

Prospective and new students may contact an enrollment specialist by phone at 800-888-UMUC or by e-mail at newgrad@umuc.edu. More detailed information on admission is available on p. 115.

AUTOMATED SERVICES

A number of automated services are available to current students online through MyUMUC and by telephone through the Interactive Registration and Information System (IRIS).

Through MyUMUC (available online at https://my.umuc.edu), students have access to many of their personal UMUC records. MyUMUC enables them to change personal information (such as home address, e-mail address, or phone numbers); register; pay bills; check grades, financial aid status, and student account status; apply for graduation; request certification for VA educational benefits and check status of request; and view and print reports (such as their class schedule, grade report, statement of account, and unofficial transcript).

Through IRIS, students can register for classes or make changes to their registration. IRIS is available seven days a week, from 6 a.m. to 9 p.m. eastern time, at 800-584-9413.

ADVISING

All students who have registered in a course are assigned an advisor, who will help guide them through all of the steps that lead to a graduate-level degree or certificate. Advisors will also recommend ways for the student to complete academic requirements quickly and efficiently.

Students who have not attended UMUC for a year or more should also contact an advisor, once they are readmitted, for assistance in getting back on track.

It is up to the student to seek advising and to keep track of his or her program requirements. Students should retain the catalog of the year they entered their program as it contains all degree requirements for which they will be held accountable.

Whenever possible, students should get advising information in writing. Students who fail to meet all degree requirements will not be cleared for graduation.

Students may contact advisors by phone, fax, or e-mail. In the local metropolitan area, students also have the option of scheduling an appointment with an advisor in person at the sites listed on the previous page.

EVALUATION OF TRANSFER CREDIT

An advisor can help students determine whether any previous graduate coursework is eligible to be accepted as transfer credit.

Up to 6 credits of graduate coursework may be considered for transfer to most graduate degree programs at UMUC if earned at a regionally accredited institution and if applicable to the student’s program of study. The Graduate School of Management and Technology will accept up to 3 graduate transfer credits for the Master of Business Administration or a certificate program. Students should contact their advisors for details.

All graduate credits offered for transfer credit must meet the following criteria:

1. The credits must have been earned as graduate credit.
2. The credits must not have been used to meet the requirements for any degree the student previously earned or is expected to earn.
3. The credits must have been awarded within the time limit for the degree or certificate.
4. The student must have earned a grade of B or better in the courses considered for transfer. (However, these grades are not included in the calculation of the student’s grade point average.)
5. The department advisor and the program director must have determined that the transfer courses are relevant to the student’s program of study.
6. The credits must have been earned at a regionally accredited institution and be equivalent to graduate-level coursework or recommended for graduate-level credit by the American Council on Education (ACE).
Services for Students with Disabilities
Reasonable accommodations are available for students who have disabilities and are enrolled in any program offered at UMUC. To allow for adequate planning, students who need accommodations should contact the director of Veteran and Disabled Student Affairs at least four to six weeks before the beginning of the session.

Students must request accommodations each time they register. The first time a student requests accommodation, current (within three years) documentation of a disability must be submitted. 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.

All UMUC students are required to meet university policies and procedures and the academic requirements of all graduate degrees and certificates. Students with disabilities should review the academic and administrative requirements listed under the program descriptions in this Graduate Catalog. Students should not apply to a UMUC certificate or degree program with the expectation that any academic requirement or administrative policy will be waived or substituted.

For more information, students should call the director of Veteran and Disabled Student Affairs at 800-888-UMUC, ext. 7930, or 301-985-7466 (TTY) or send an e-mail to vdsa@umuc.edu.

Transcript Services
Students should contact the Office of the Registrar to receive an official UMUC transcript. Written requests should be addressed to Office of the Registrar, University of Maryland University College, 3501 University Boulevard East, Adelphi, MD 20783. Continuing students may request transcripts via MyUMUC at https://my.umuc.edu.

Graduation Services
Advisors are available to answer any questions about requirements for graduation and the application for diploma or certificate at 800-888-UMUC, ext. 7155, or gradinfo@umuc.edu.

Golden ID Program
Senior citizens may qualify for participation in the Golden Identification program, which allows them to register for up to 6 credits per session without paying tuition. Students must be Maryland residents, U.S. citizens, or documented permanent residents; 60 years old by the beginning date of the session for which they are applying; and not employed more than 20 hours per week to qualify for this program. Golden ID students may only register the week before classes begin on a space-available basis. Benefits do not apply to Master of Business Administration, Executive Programs, or 800-level courses. To request an application, students should contact Graduate Advising at 800-888-UMUC. More information on this program is available online at www.umuc.edu/grad/stud/golden.shtml.

Student Advisory Council
The Student Advisory Council provides an avenue for students to express their concerns about UMUC or their academic career. The council consists of 12 members, elected by their fellow students, who act in an advisory capacity to the university president, provost, deans, and other officials on behalf of all students.

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 in the chapter on University Policies in this catalog and online at www.umuc.edu/gov.

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 university education. Aid is available for students who can prove financial need, academic merit, or both. Regardless of income level, all students are urged to apply for assistance; many financing alternatives are available.

General Eligibility Requirements
An eligible applicant for UMUC need-based assistance must
• Be admitted to UMUC as a regular degree-seeking or eligible certificate-seeking student
• Be a U.S. citizen or classified as an eligible noncitizen
• Be enrolled half-time (6 credits during the fall and spring sessions and 3 credits during the summer) for federal loan programs; institutional aid requires enrollment for at least 3 credits
• Demonstrate satisfactory academic progress toward a degree or certificate according to UMUC policy
• Have a high school or GED diploma
SERVICES AND RESOURCES

- Possess a valid Social Security number
- Register with Selective Service, if required to do so
- Not be in default on any federal student loans, nor have borrowed in excess of loan limits, nor owe a refund on any grant under Title IV federal student aid programs
- Not be ineligible based on a drug conviction

Financial Aid Programs

Most aid programs are available to both full- and part-time students. UMUC offers several kinds of aid, including grants, scholarships, work-study, and loans. In most cases, at least half-time enrollment (6 credits) is required.

Amounts and eligibility for financial aid vary from year to year. Following is a brief description of amounts likely to be available for the 2008–9 award year.

GRANTS AND SCHOLARSHIPS

Gift assistance, for which no repayment is required, is offered by the state of Maryland and UMUC. The UMUC Financial Aid Office administers several types of gift assistance: UMUC scholarships and grants and Maryland state scholarships and grants.

The UMUC President’s Grant program offers grants to students who demonstrate financial need. Typical awards during the 2008–9 year will range from $100 to $600 per session, 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. A separate scholarship application must be completed for consideration. Requirements vary according to the individual scholarship programs. Typical awards range from $200 to $1,500 per session, depending on the specific program. Most scholarships require a minimum GPA for consideration. Students should visit www.umuc.edu/scholarships for more information.

Maryland state grant and scholarship programs provide financial assistance to Maryland residents based primarily on financial need. Awards to graduate students typically require enrollment of at least 6 credits per session. Award amounts range from $200 to $3,000 annually. Senatorial and Delegate Scholarship awards are based on criteria established by the elected official. For more information, students should contact the Maryland Higher Education Office of Student Financial Assistance at 410-260-4565 or 800-974-1024 or visit www.mhec.state.md.us.

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. Students should inquire about scholarship possibilities through organizations with which they have an affiliation. Additional scholarship links and search tools are available through the Web at www.umuc.edu/financialaid.

LOANS

Loan programs are available to students enrolled for at least 6 credits per standard session. 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. UMUC is the lender. Award amounts typically range between $500 and $1,500 per session. 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. 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.

Graduate PLUS and other alternative 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 the U.S. Department of Education and many banks and other lenders. Alternative student loans typically require a credit check and often a cosigner. Students are generally required to be enrolled for at least 6 credits. Students who are interested in an alternative student loan should contact the bank of their choice or visit UMUC’s Web page on alternative student loans at www.umuc.edu/financialaid for more information.

EMPLOYMENT PROGRAMS FOR STUDENTS

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 the 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 in the university setting or in an approved community-service position. Students who do not secure such employment forfeit
their work-study award. More information is available from the Financial Aid Office and at www.umuc.edu/financialaid.

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 academic standard are placed on financial aid probation for one session, during which they may receive financial aid. If a student fails to meet the minimum requirements during probation, the student is denied aid the following session and financial aid is not disbursed. Students should refer to the chapter on University Policies for details of the appeal process and the complete Satisfactory Academic Progress policy for financial aid students.

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 a student to be considered for need-based Maryland state scholarships.

UMUC FINANCIAL AID PRIORITY DEADLINES

One of the most important aspects of the financial aid process is applying for assistance as early as possible. The following application deadlines are priority deadlines. Students meeting these dates will have the opportunity to be considered for the various grant and scholarship programs with limited funds. Students meeting the priority deadlines will also enjoy the security of having their award authorizations ready at the time of registration. 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. Late applications are processed continually throughout the award year, so students are always encouraged to apply. Eligibility for both loans and grants can be authorized even after the semester has begun.

To be given high priority for their financial aid applications and a determination of eligibility early enough for funds to be reserved by registration, students should complete the Free Application for Federal Student Aid (FAFSA) by the priority deadlines below.

<table>
<thead>
<tr>
<th>Program or Period Being Applied for</th>
<th>Priority Deadline for Filing Financial Aid Forms</th>
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<tbody>
<tr>
<td>Maryland State Scholarships</td>
<td>March 1</td>
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<tr>
<td>Full Academic Year or</td>
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<tr>
<td>Fall Session Only</td>
<td>June 1</td>
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<td>Spring Session Only</td>
<td>November 1</td>
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<td>Summer Session</td>
<td>April 1</td>
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</table>

Federal Return of Funds Policy

Students who are receiving financial aid and drop a class may have their financial aid awards reduced or canceled. Students who are receiving Title IV federal financial aid funds and withdraw from all classes within the first 60-percent of the academic session are subject to a return-of-funds calculation, as required by federal law. UMUC is required to return to the federal government any federal financial aid funds that were “unearned” based on the percentage of time the student attended class. Students who stop attending all classes without officially withdrawing are subject to the return-of-funds calculation at the end of the session based on the last documented date of attendance as determined by the faculty.

Financial aid recipients should check with a financial aid advisor before withdrawing from a course to determine the impact on their award.

Students must follow UMUC’s withdrawal procedures, as detailed on p. 117.

More information on the federal Title IV refund policy is available online at www.umuc.edu/policy.

For Further Information

Information and applications are available from Student Financial Services. Students can also obtain a current financial aid kit by contacting their advisor. All financial aid information and forms are also available at www.umuc.edu/financialaid on the UMUC Web site. Students with additional questions should either contact Student Financial Services by phone at 800-888-UMUC, ext. 7510, or by e-mail at gradfinaid@umuc.edu.
Veterans Benefits

Veterans Benefits Programs
The following educational assistance programs administered by the U.S. Department of Veterans Affairs are available for active-duty military personnel, reservists, veterans, and their dependents who are attending UMUC:

- The Montgomery GI Bill–Active Duty Educational Assistance Program (Chapter 30)
- Vocational Rehabilitation (Chapter 31)
- Post–Vietnam Era Educational Assistance Program (Chapter 32)
- Survivors’ and Dependents’ Educational Assistance Programs (Chapter 35)
- Montgomery GI Bill–Selected Reserve Educational Assistance Program (Chapter 1606)
- Educational Assistance for Reserve Component Members Supporting Contingency Operations and Certain Other Operations (Chapter 1607)

Detailed information on these programs is available online at www.umuc.edu/vabenefits and 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 on application procedures at www.umuc.edu/vabenefits. Every educational assistance program requires different paperwork and documentation to process a claim. Initial applications for benefits may be submitted online directly to the U.S. Department of Veterans Affairs. Students must also complete a UMUC Veterans Certification form (available online via MyUMUC) 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.umuc.edu/vabenefits.

Benefits are paid directly to students on a monthly basis. The money may be used to help with tuition, books, or other costs of college education. Eligibility for benefits does not defer payment of tuition.

The U.S. Department of Veterans Affairs offers an accelerated payment program to students eligible for Montgomery–GI Bill (MGIB) benefits. The program provides a lump-sum payment of 60 percent of a student’s tuition and fees for certain high-cost, high-tech programs. To receive accelerated payment, the tuition and fees for a session must be more than double the MGIB benefits that a student would receive otherwise for the session. More information on the accelerated payment program is available on the U.S. Department of Veterans Affairs Web site 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. Students who have graduate credit earned from a regionally accredited institution must have an evaluation completed during the first session of attendance. 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:

- Each student is expected to make satisfactory progress toward a degree or certificate; everyone must comply with the academic standards of UMUC.
- Each student 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 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, P, or S was assigned.
• Payment of benefits will be disallowed for any course that is not a requirement in a student’s degree or certificate program.

Noncredit Graduate Courses
The U.S. Department of Veterans Affairs does not pay benefits for noncredit graduate courses.

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, 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 Web site.

Other Resources

Bookstores
Students can order books from MBS Direct online through the UMUC Virtual Bookstore. In conjunction with MBS Direct, UMUC offers convenient online and mail-order shipping for required textbooks and software for courses in classroom and distance education formats. MBS guarantees availability of new and used inventory, shopping discounts if books are ordered online, no sales tax, and an easy return and buyback program. Orders are shipped via UPS, Monday through Friday, within 24 hours of receipt. Overnight and two-day delivery is available for an additional fee. Payment by personal check, American Express, Discover, MasterCard, and Visa is accepted. Some employer contracts may be accepted.

University Book Center/Barnes & Noble in College Park also carries materials for UMUC classes held on the College Park campus. Walk-in customers should inquire at the customer service desk. Most major credit cards and some employer-provided assistance documents are accepted. Students should call 800-343-6621 for additional information and store hours.

Career Services
Career Services provides resources and services to assist UMUC students and alumni worldwide with their career and job search needs. For additional information, call 800-888-UMUC, ext. 6785.

CAREER DEVELOPMENT AND PLANNING
Career Services professionals are available to provide personalized attention to help students clarify their skills, interests, and work-related values; making career/life-related decisions; research career options; plan for further study; and search for employment.

JOB SEARCH SERVICES
Services designed to assist the employment needs of UMUC students and alumni include job fairs; employability skills workshops, such as résumé writing and interview preparation; job search tutorials; and CareerQuest, UMUC’s online job and internship database, which enables students to search job listings and post résumés for prospective employers.

RESOURCE LIBRARY
Career Services offers a variety of print and online materials that can be useful in the career planning and job search process. Resources include occupational information, employer and grad-
SERVICES AND RESOURCES

uate school directories, job hunting guides, and career resource literature.

Services are available on a walk-in basis, by appointment, or online via e-mail. For more information students should call 301-985-6785 or e-mail queries to careerservices@umuc.edu.

Computer Labs and Services

Computer labs are available at many UMUC sites (including Adelphi, Dorsey Station, 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 library bar code. Students must bring a disk or flash drive to save data or documents.

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.

Technical support for WebTycho, MyUMUC, and other learning applications is available 24 hours a day, seven days a week, through UMUC 360 Support online at support.umuc.edu or by phone at 888-360-UMUC (8682) or 301-985-6710.

Information and Library Services

UMUC's Information and Library Services (www.umuc.edu/library) provides a wide range of resources and services to best meet the information needs of UMUC’s students, faculty, and staff.

LIBRARY RESOURCES

Information and Library Services provides access to a rich collection of research materials on business, social science, science, arts and humanities, computer and information systems, and other topics related to UMUC’s curriculum. Students can access an extensive array of subscription databases containing tens of thousands of full-text articles, as well as thousands of electronic books, through the Information and Library Services home page at www.umuc.edu/library or through WebTycho.

LIBRARY SERVICES

Currently enrolled students in the continental United States 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 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, Information and Library Services offers library instruction both in person and via WebTycho. This instruction serves to complement and reinforce the skills and information gained through UCSP 611 Introduction to Graduate Library Research Skills. Faculty members may contact Information and Library Services to request an on-site or online library instruction session. In addition, students can obtain individualized research assistance by contacting Information and Library Services or by visiting the Peck Virtual Library Classroom (VLIB 101) within WebTycho.
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<tr>
<th>Name</th>
<th>Title</th>
<th>Story 1</th>
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<td>Abdelhamied, Adam</td>
<td>Adjunct Associate Professor</td>
<td>BA, Cairo University, 1977</td>
<td>MS, Ohio State University, 1982</td>
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<td>Abdul-Hamid, Husein</td>
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<td>BS, Birzeit University, 1987</td>
<td>MS, American University, 1990</td>
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<td>BS, George Mason University, 1984</td>
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<td>Abrego, Joe L.</td>
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<td>BA, St. Mary's College of California, 1985</td>
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<td>EdD, Alliant International University, 2006</td>
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<td>Ackerhoff, Ruth A.</td>
<td>Adjunct Professor</td>
<td>BS, Texas Tech University, 1974</td>
<td>MA, Western Michigan University, 1995</td>
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<td>PhD, Capella University, 1999</td>
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<td>Adair, Deborah E.</td>
<td>Adjunct Associate Professor</td>
<td>BS, Boston University, 1982</td>
<td>MS, University of Arizona, 1992</td>
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<td>PhD, University of Arizona, 1997</td>
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<td>Adams, Kevin M.</td>
<td>Adjunct Assistant Professor</td>
<td>BS, Rutgers University, 1981</td>
<td>MS, Massachusetts Institute of Technology, 1986</td>
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<td>Akazan, Justin</td>
<td>Adjunct Assistant Professor</td>
<td>MS, University of Nancy, 1992</td>
<td>PhD, National Polytechnic Institute of Lorraine, 1996</td>
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<td>Alkbar, Yusaf H.</td>
<td>Adjunct Associate Professor</td>
<td>BA, University of Sussex, 1992</td>
<td>MA, College of Europe, 1993</td>
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<td>Akpom, Uchenna N.</td>
<td>Adjunct Associate Professor</td>
<td>MA, University of Louisiana, 1987</td>
<td>MBA, Morehead State University, 1983</td>
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<td>BS, University of Florida, 1984</td>
<td>MA, University of Central Florida, 1989</td>
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<td>Alden, Jay</td>
<td>Adjunct Professor</td>
<td>BS, Long Island University, 1966</td>
<td>MS, Hofstra University, 1968</td>
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<td>PhD, Hofstra University, 1973</td>
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<td>Aldridge, Susan C.</td>
<td>President and Collegiate Professor</td>
<td>BA, Colorado Women's College, 1977</td>
<td>MPA, University of Colorado at Denver, 1987</td>
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<td>DPA, University of Colorado at Denver, 1991</td>
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<td>MBA, Bowling Green State University, 1977</td>
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<td>MS, North Texas State University, 1981</td>
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<td>Provost Emeritus and Collegiate Professor</td>
<td>BS, U.S. Coast Guard Academy, 1963</td>
<td>MBA, Oklahoma City University, 1970</td>
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<td>MA, University of Pennsylvania, 1991</td>
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<td>MA, University of Maryland, College Park, 1980</td>
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<td>Andersen, David G.</td>
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<td>BS, Concordia Teachers College, 1964</td>
<td>MA, Wayne State University, 1971</td>
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<td>Anderson, Katherine M.</td>
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<td>MS, University of Tennessee, 1979</td>
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<td>Andriasova, Anna V.</td>
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<td>BS, Yerevan State University, 1997</td>
<td>MBA, American University of Armenia, 1999</td>
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<td>PhD, University of Texas at Austin, 2006</td>
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<td>Adjunct Assistant Professor</td>
<td>BA, University of Maryland, Baltimore County, 1995</td>
<td>MLS, University of Maryland, College Park, 1998</td>
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<td>Arshanapalli, Bala G.</td>
<td>Adjunct Professor</td>
<td>BA, Kakatiya University, 1978</td>
<td>MA, University of Waterloo, 1983</td>
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<td>Adjunct Assistant Professor</td>
<td>BS, Alexandria University, 1974</td>
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<td>MS, Ohio University, 1977</td>
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<td>Adjunct Associate Professor</td>
<td>BA, George Washington University, 1989</td>
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<td>Azani, Cyrus H.</td>
<td>Adjunct Professor</td>
<td>BS, Shiraz University, 1973</td>
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<td>Adjunct Associate Professor</td>
<td>BS, Alexandria University, 1984</td>
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<td>PhD, University of North Texas, 1994</td>
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<td>Backhaus, Wilfried Karl</td>
<td>Adjunct Assistant Professor</td>
<td>BA, University of Calgary, 1969</td>
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<td>Adjunct Professor</td>
<td>BSBA, Korea University, 1980</td>
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<td>Adjunct Professor</td>
<td>BA, Lebanese University, 1981</td>
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<td>MS, American University, 1985</td>
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<td>Adjunct Professor</td>
<td>BS, University of Birmingham, 1963</td>
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<td>Adjunct Professor</td>
<td>BS, U.S. Military Academy at West Point, 1970</td>
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<td>Adjunct Associate Professor</td>
<td>BS, Bloomsburg University of Pennsylvania, 1982</td>
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<td>Adjunct Associate Professor</td>
<td>BA, University of Nairobi, 1983</td>
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<td>Adjunct Professor</td>
<td>BS, Northern Illinois University, 1974</td>
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<td>Adjunct Associate Professor</td>
<td>BA, University of Pennsylvania, 1982</td>
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<td>Adjunct Associate Professor</td>
<td>BS, New York University, 1989</td>
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<td>Adjunct Assistant Professor</td>
<td>AB, Brown University, 1965</td>
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<td>Program Director, Human Resource Management, and Collegiate Professor</td>
<td>BA, Indiana University, 1973</td>
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<td>Program Director, Health Care Administration, and Collegiate Professor</td>
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<td>Adjunct Professor</td>
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<td>Adjunct Professor</td>
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<td>Benson, Ronald G.</td>
<td>Adjunct Professor</td>
<td>BS, University of Iowa, 1965</td>
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Berezdivan, Robert
Adjunct Professor
BS, University of Florida, 1965
MS, University of Florida, 1966
PhD, University of California, Berkeley, 1972

Berge, Zane L.
Adjunct Professor
BS, Rochester Institute of Technology, 1977
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Berkowitz, Joan
Adjunct Professor
BA, Swarthmore College, 1952
PhD, University of Illinois, 1955

Berkovich, Ulrich
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Bhatt, Ganesh D.
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B.Tech, Indian Institute of Technology, 1983
M.Tech, Indian Institute of Technology, 1989
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DBA, Southern Illinois University at Carbondale, 1965

Bhattacharya, Mousumi
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Bijlani, Subash K.
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BS, University of Manchester Institute of Science and Technology, 1964
MS, Bombay University, 1978
MS, Punjab University, 1981

Bishop, Perry C.
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BA, University of Arizona, 1968
MSEd, University of Southern California, 1974
MS, Butler University, 1978

Bishop, Tana
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BA, University of Maryland University College, 1987
MA, University of Hawaii, 1990
PhD, University of Maryland, College Park, 2002

Blank, Murray D.
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BS, U.S. Naval Academy, 1958
MS, George Washington University, 1970
MBA, Loyola College in Maryland, 1985
EdD, George Washington University, 1995

Blayne, Gerald D.
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Blazy, Louis J.
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BA, George Mason University, 1979
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MBA, George Washington University
PhD, University of Maryland, College Park, 1985

Blossom, Aaron P.
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Bolstad, Monica S.
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PhD, University of Maryland, College Park, 1998

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MA, West Virginia University, 1995
PhD, Virginia Polytechnic Institute and State University, 2001

Boon, John E.
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BA, Virginia Wesleyan College, 1980
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Booth, Bryan A.
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MS, Cornell University, 1992
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MS, Marymount University, 1992
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LLM, George Washington University, 1998

Borders, William S.
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BS, Louisiana State University, 1975
MS, California Institute of Technology, 1980
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Borne, Kirk D.
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BA, Florida State University, 1968
MA, Pacific Lutheran University, 1974
MHA, Baylor University, 1978
PhD, University of Washington, Seattle, 1983

Bonin, Morris R.
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BS, American University, 1964
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PhD, George Washington University, 1984

Bouldin, Agnes R.
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MA, Central Michigan University, 1980
PhD, University of Pittsburgh, 1988

Bourne, Lynda M.
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Boyle, Conrad L.
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MBA, University of Florida, 1964
PhD, University of Washington, 1982

Bradway, Lisa
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Bravo, Kathleen M.  
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MA, University of Pittsburgh, 1975  
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MPA, Harvard University, 1993  

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Brown, Terrence A. Sr.  
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MS, State University of New York at Stony Brook, 1989  
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Calo, Thomas J.  
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BS, University of Maryland, College Park, 1972  
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Carroll, Mary C.  
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MS, National Defense University, 2000  

Carswell, Alan D.  
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Chadwick, David M.  
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MEng, George Washington University, 1989  
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Chan, Paul H.  
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Chandler, Debra J.  
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Chang, Ai-Mei  
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MD, Hebei Medical University, 1983  
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Chaudhry, Mukesh K.
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BA, Louisiana State University, 1969
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MDiv, Princeton Theological Seminary, 1971
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MS, University of Oregon, 1968
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MEd, University of Alberta, 1991
PhD, University of Alberta, 2002

Conteh, Nabie Y.
Adjunct Assistant Professor
BS, Institute for Information and Communication Technology, 1998
MBA, Ferris State University, 2000
MS, University of Maryland, Baltimore County, 2003
PhD, University of Maryland, Baltimore County, 2004

Cook, James H.
Adjunct Professor
BS, Ohio State University, 1965
MS, Ohio State University, 1967
PhD, Ohio State University, 1970

Corman, Lawrence S.
Adjunct Professor
BA, Texas Tech University, 1976
MS, Texas Tech University, 1977
PhD, University of North Texas, 1989

Cornaby, Mary E.
Adjunct Associate Professor
BA, University of Washington, 1973
MLS, University of Washington, 1974
JD, Seattle University, 1980

Corriere, Michael A.
Adjunct Associate Professor
BS, U.S. Naval Academy, 1988
MBA, University of New Mexico, 1994
MS, Naval Postgraduate School, 2000
PhD, American University, 2006
Cost, Richard S.  
*Adjunct Assistant Professor*  
AB, Colgate University, 1988  
MSE, Johns Hopkins University, 1991  
PhD, University of Maryland, Baltimore County, 1999

Costa, Joseph  
*Adjunct Associate Professor*  
MS, University of Southern California, 1973  
EdD, University of Southern California, 1980

Crafton, Linda K.  
*Adjunct Associate Professor*  
BA, University of Evansville, 1972  
MA, Indiana University, 1976  
EdD, Indiana University, 1981

Crisan, Marius  
*Adjunct Associate Professor*  
MS, Polytechnic University of Timisoara, 1980  
PhD, Polytechnic University of Timisoara, 1993

Cristea, Valentin  
*Adjunct Professor*  
PhD, Polytechnic University of Bucharest, 1980

Crociito, Madeline M.  
*Adjunct Professor*  
BA, Baruch College, 1976  
MBA, Baruch College, 1982  
PhD, Baruch College, 1989

Crosby, Jack W.  
*Collegiate Associate Professor*  
BS, Pennsylvania State University, 1961  
MS, University of Houston, 1967  
PhD, University of Houston, 1970

Curtis, Elizabeth D.  
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BS, Hampton University, 1980  
MS, University of North Carolina, 1983  
JD, North Carolina Central University, 1994

Czapla, Pamela  
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BA, Wayne State University, 1970  
MS, Wayne State University, 1971  
PhD, Pennsylvania State University, 1992

Dabbah, Roger  
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BA, University of Minnesota, 1961  
MS, University of Minnesota, 1965  
PhD, University of Maryland, College Park, 1970  
MBA, University of Dayton, 1976

Dampier, David A.  
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BS, University of Texas at El Paso, 1984  
MS, Naval Postgraduate School, 1990  
PhD, Naval Postgraduate School, 1994

Darko, George  
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BA, Arkansas State University, 1996  
MS, Tennessee State University, 1998  
PhD, Tennessee State University, 2002

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BS, Burdwan University, 1966  
MS, University of Vermont, 1971  
PhD, Case Western Reserve University, 1976  
MS, Johns Hopkins University, 1984

Dauphinee, Douglas H.  
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MS Salve Regina College, 1991  
PhD Salve Regina College, 1994

Davis, Juliet A.  
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BS, Lehman College, 1990  
MA, Pennsylvania State University, 1992  
PhD, Pennsylvania State University, 1999

Davis, Roger W.  
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BA, University of Maryland Eastern Shore, 1991  
MS, Coppin State College, 1993  
EdD, Morgan State University, 1998

Deacon, Ronald W.  
*Adjunct Associate Professor*  
BES, Johns Hopkins University, 1965  
MS, University of Massachusetts, 1967  
PhD, University of Massachusetts, 1970

Debakey, George T.  
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BS, Drake University, 1972  
MBA, Southern Methodist University, 1974

DeGrazia, Bruce C.  
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BA, DePaul University, 1976  
MA, University of London, 1978  
JD, DePaul University, 1983

DeGroot, Timothy  
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BS, Florida State University, 1992  
MBA, Florida State University, 1993  
PhD, University of Florida, 1997

DeJong, Mark E.  
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BS, State University of New York College at Brockport, 1993  
MA, State University of New York College at Brockport, 1997  
MLS, State University of New York at Buffalo, 1999

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BBA, Moscow Technical College, 1990  
MBA, University of Louisiana, 1998  
DBA, Louisiana Tech University, 2001

Dell’Amore, Jean M.  
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BA, Georgetown University, 1967  
MA, Georgetown University, 1969  
MBA, Loyola College in Maryland, 2007  
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Dellarippa, Enrico P.  
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BS, University of Hartford, 1987  
MS, University of Hartford, 1991  
MBA, Rensselaer Polytechnic Institute, 1999  
MS, Rensselaer Polytechnic Institute, 2002  
MS, University of Southern California, 2005

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BS, Rostov State University, 1979  
MS, Institute of Physical Chemistry, Academy of Sciences of the Union of Soviet Socialist Republics, 1982  
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BS, California University of Pennsylvania, 1990  
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MS, Michigan State University, 2001  
DSc, Georgetown University, 2005
Dinauer, Leslie  
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MA, American University, 1991  
PhD, University of Maryland, College Park, 2003  

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BS, Bangalore University, 1976  
MS, Bangalore University, 1976  
MS, Ohio State University, 1982  
PhD, Ohio State University, 1982  
MBA, Northwestern University, 2001  

Dolch, Norman A.  
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MA, University of Missouri–Columbia, 1971  
PhD, University of Missouri–Columbia, 1976  

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MLS, San Jose State University, 2000  
MA, California State University, Hayward, 2004  

Dreibelbis, Daniel C. Jr.  
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MIM, University of Maryland  
University College, 1995  

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BS, University of Texas at Austin, 1989  
MS, University of Texas at Austin, 1992  

Eaddy, Trina A.  
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JD, Southern University Law Center, 1998  

Edwards, Kathleen F.  
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BS, University of Maryland, College Park, 1967  
MS, Catholic University of America, 1971  
PhD, Catholic University of America, 1981  

Ehlers, Ulf-Daniel  
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PhD, University of Bielefeld, 2004  

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BS, Cairo University, 1969  
MBA, American University, 1980  
PhD, George Mason University, 2005  

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MA, Washington College, 1972  
PhD, University of Maryland, College Park, 1982  

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BS, Rutgers University Newark, 1991  
MS, Long Island University, 1993  
DBA, Louisiana Tech University, 1997  

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Adjunct Associate Professor  
BS, Cairo University, 1966  
PhD, Hungarian Academy of Sciences, 1979  

Ellis, George J.  
Collegiate Professor  
BA, Yale University, 1956  
MS, George Washington University, 1967  
PhD, George Washington University, 1990  

Ellis, Maureen L.  
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BS, St. Mary's of the Woods College, 1990  
MS, Indiana University, 1999  
PhD, Indiana University, 2003  

Engvig, Mona  
Collegiate Professor  
BA, Oslo Music Conservatory, 1984  
MA, Golden Gate University, 1992  
MA, Stanford University, 1996  
PhD, Stanford University, 1997  

Epps, John L.  
Adjunct Assistant Professor  
BA, The Citadel, 1961  
PhD, Southern Methodist University, 1971  

Esler, Anne G.  
Adjunct Assistant Professor  
BA, University of Michigan, 1993  
MLS, Wayne State University, 1998  
MBA, University of Phoenix, 2002  

Ethington, Cristina  
Adjunct Associate Professor  
BS, Federal University of Rio de Janeiro, 1991  
MS, Polytechnic University, 1993  

Evanchik, Michael A.  
Department Chair, Business and Executive  
Programs, and Collegiate Professor  
BS, Rensselaer Polytechnic Institute, 1971  
MS, Rensselaer Polytechnic Institute, 1972  
MS, University of Southern California, 1974  
PhD, University of Washington, 1989  

Fawcett, Caroline  
Adjunct Associate Professor  
BA, University of New Mexico, 1975  
MA, American University, 1980  
PhD, Johns Hopkins University, 1991  

Fawson, Trude J.  
Adjunct Assistant Professor  
BA, Queens College, City University  
of New York, 1966  
MA, University of Chicago, 1967  
PhD, University of Chicago, 1972  

Fazio, Rosario “Russ”  
Adjunct Associate Professor  
BS, City College of New York, 1972  
MS, Hunter College, City University  
of New York, 1976  
PhD, Syracuse University, 1988  

Fekete, Paul J.  
Adjunct Assistant Professor  
BA, Bates College, 1978  
MA, Johns Hopkins University, 1982  

Fero, Howard C.  
Adjunct Associate Professor  
BA, Hofstra University, 1995  
MS, Baruch College, 1999  
PhD, Claremont Graduate School, 2005  

Field, Ralph, T.  
Adjunct Professor  
BA, Colby College, 1974  
MA, University of Maine, 1976  
PhD, Cornell University, 1988  

Finkelstein, Robert  
Collegiate Professor  
BA, Temple University, 1964  
MS, University of Massachusetts, 1966  
MS, George Washington University, 1974  
DBA, George Washington University, 1995  

Fitzgibbons, Patrick W.  
Adjunct Professor  
BS, State University of New York at Buffalo, 1979  
MBA, University of Illinois, 1984  
PhD, State University of New York at Buffalo, 1996
<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Degree Details</th>
</tr>
</thead>
</table>
| Fitzpatrick, Edmund W. | Adjunct Professor            | BA, Hamline University, 1957  
MA, University of Minnesota, 1958  
PhD, Catholic University of America, 1970                                       |
| Fitzsimmons, Charles F.| Collegiate Professor         | MLA, Johns Hopkins University, 1965  
EdD, George Washington University, 1975                                                |
| Fleming, Emmett L.    | Program Director, Procurement and Contract Management, and Collegiate Professor | BS, Virginia State University, 1964  
MS, Virginia State University, 1965  
JD, University of Maryland, Baltimore, 1976  
PhD, Catholic University of America, 1977                                             |
| Flyzik, James J.      | Adjunct Professor            | BS, University of Maryland, College Park, 1975  
MBA, University of Maryland, College Park, 1982                                          |
| Fonseca, Ana Flavia   | Adjunct Professor            | BA, Federal University of Paraiba, 1971  
MS, California State University, Fullerton, 1974  
MBA, University of Southern California, 1984  
PhD, Claremont Graduate University, 1993                                                |
| Forbes, Judith L.     | Adjunct Professor            | BA, California State University, Fullerton, 1974  
MS, California State University, Fullerton, 1979  
MBA, University of Southern California, 1984  
PhD, Claremont Graduate University, 1993                                                |
| Forster, Anne         | Adjunct Associate Professor  | BA, University of New South Wales, 1973  
DipEd, University of Newcastle, 1973  
MEd, University of Sydney, 1983                                                           |
| Francois, Olga        | Adjunct Associate Professor  | BA, Smith College, 1989  
MLIS, University of Pittsburgh, 1996                                                    |
| Frank, Ilene          | Adjunct Associate Professor  | BSD, University of Michigan, 1967  
MLS, University of Michigan, 1974  
MFA, University of South Florida, 1986                                                    |
| Frank, Michael S.     | Dean and Vice Provost, Graduate School of Management and Technology, and Collegiate Professor | BA, University of Maryland, College Park, 1968  
MA, University of Maryland, College Park, 1973  
PhD, University of Maryland, College Park, 1981                                          |
| Frohnhoefer, Francis W.| Adjunct Associate Professor  | BA, Catholic University of America, 1963  
MA, University of Pennsylvania, 1965  
MBA, University of Pennsylvania, 1978                                                    |
| Fresen, Jill W.       | Adjunct Assistant Professor  | BA, University of the Witwatersrand, 1983  
MEd, University of Pretoria, 1997  
PhD, University of Pretoria, 2005                                                         |
| Fuller, Mila M.       | Adjunct Assistant Professor  | BS, University of Illinois at Urbana-Champaign  
MA, College of Notre Dame of Maryland, 2000                                               |
| Fulton, James A.      | Adjunct Associate Professor  | BA, Kansas State College of Pittsburgh, 1965  
AM, University of Illinois, 1968  
PhD, Brown University, 1970                                                               |
| Ganguly, Pradeep      | Adjunct Associate Professor  | BA, Delhi University, 1966  
MA, Delhi School of Economics, 1968  
PhD, Clemson University, 1980                                                             |
| Gantz, Stephen        | Adjunct Assistant Professor  | BA, Harvard University, 1990  
MPP, Harvard University, 1998                                                             |
| Gao, Shaojian James   | Adjunct Associate Professor  | BS, Shandong University, 1984  
PhD, University of Kentucky, 1994                                                         |
| Garuba, Moses         | Adjunct Associate Professor  | MS, University of London, 1993  
MS Howard University, 2000  
PhD, University of London, 2004                                                            |
| Gaylor, Billy F.      | Adjunct Professor            | BS, Morehouse College, 1962  
MS, American University, 1974  
PhD, University of California, Santa Barbara, 1980                                        |
| Geiger, Marshall A.   | Adjunct Professor            | BS, Bloomsburg University of Pennsylvania, 1982  
MS, Pennsylvania State University, 1985  
PhD, Pennsylvania State University, 1988                                                 |
| Gelatt, James P.      | Program Director, Doctoral Program | BA, St. Lawrence University, 1966  
MA, Colgate University, 1969  
PhD, University of Southern California, 1979                                               |
| Georgiou, George      | Adjunct Professor            | BA, Drew University, 1973  
MPH, George Washington University, 1978  
PhD, George Washington University, 1979                                                    |
| Getman, Jon B.        | Adjunct Assistant Professor  | BA, Catholic University of America, 1985  
MS, American University, 1992  
PhD, George Mason University, 2000                                                          |
| Gilbert, Daniel E.    | Adjunct Associate Professor  | PhD, University of Maryland, College Park, 1972  
MBA, Syracuse University, 1986                                                             |
| Gilchrist, Robert N.  | Adjunct Professor            | BS, University of Pennsylvania, 1986  
MS, University of Southern California, 1988  
MS, University of Colorado at Boulder, 1995  
PhD, Colorado School of Mines, 1999                                                        |
| Ginocchi, Leonard     | Adjunct Assistant Professor  | BS, Youngstown University, 1974  
MA, University of Maryland University College, 1998  
DM, University of Maryland University College, 2005                                          |
| Glennie, John R.      | Collegiate Associate Professor | BA, Denison University, 1964  
MBA, Indiana University at Kokomo, 1966  
DBA, George Washington University, 1971                                                   |
| Glickstein, Ira S.    | Adjunct Associate Professor  | BEE, City College of New York, 1961  
MS, State University of New York at Binghamton, 1990  
PhD, State University of New York at Binghamton, 1996                                        |
Glickstein, Violet  
*Adjunct Assistant Professor*  
BS, Brooklyn College, 1963  
MS, State University of New York at Binghamton, 1983

Goff, Donald L.  
*Adjunct Professor*  
BAT, Western Illinois University, 1969  
AM, University of Illinois, 1970  
PhD, Northwestern University, 1991

Goldsmith, Joseph E.  
*Collegiate Professor*  
BS, University of Southern Mississippi, 1980  
PhD, University of Southern Mississippi, 1986

Goldstein, Jerry M.  
*Adjunct Associate Professor*  
BA, University of Toledo, 1969  
MAT, State University of New York College at Brockport, 1971  
MA, University of Toledo, 1972  
PhD, Pennsylvania State University, 1975

Goodale, Beverley J.  
*Adjunct Assistant Professor*  
BS, University of Maryland University College, 1986  
MS, University of Maryland University College, 1996

Goodwin, Robert C. Jr.  
*Associate Chair, Master of Business Administration, and Collegiate Professor*  
BA, Fordham University, 1963  
JD, Georgetown University, 1969

Gortcheva, Elena  
*Collegiate Associate Professor*  
BS, Polytechnic University of Kharkov, 1977  
MS, Polytechnic University of Kharkov, 1977  
PhD, Institute of Mechanics and Biomechanics of the Academy of Science of Bulgaria, 1993

Goulding, Thomas L.  
*Adjunct Professor*  
BS, Washburn University, 1967  
MS, University of Florida, 1969  
PhD, University of Florida, 1971

Goyette, Heather N.  
*Adjunct Assistant Professor*  
BA, Ramapo College, 1996  
MLS, Rutgers University, 2000

Graber, Eric S.  
*Adjunct Professor*  
BA, California State College, 1965  
PhD, Iowa State University, 1978

Grabowski, Beatrice  
*Adjunct Associate Professor*  
PhD, University of Maryland, College Park, 2000

Granby, Cynthia C.  
*Adjunct Assistant Professor*  
BS, Albany State College, 1991  
MS, Troy State University, 1993  
PhD, Old Dominion University, 2001

Gray, George L.  
*Adjunct Assistant Professor*  
MS, Rensselaer Polytechnic Institute, 1967  
MA, University of Delaware, 1972  
PhD, University of Delaware, 1978

Gray, Joshua P.  
*Adjunct Assistant Professor*  
BS, Pennsylvania State University, 1998  
PhD, Pennsylvania State University, 2004

Gray, Sheila  
*Adjunct Assistant Professor*  
BA, University of Pittsburgh, 1973  
MEd, Loyola College in Maryland, 1978  
PhD, University of Maryland, College Park, 1992

Gray, Terrie  
*Adjunct Assistant Professor*  
BA, University of California, Davis, 1973  
MA, California State University, Sacramento, 1993  
EdD, Pepperdine University, 1998

Green, Timothy D.  
*Adjunct Associate Professor*  
BA, Andrews University  
MS, Indiana University Bloomington, 1998  
PhD, Indiana University Bloomington, 2000

Greene, James  
*Adjunct Associate Professor*  
BS, University of Maryland University College, 1989  
MS, American University, 1992  
JD, University of Maryland, Baltimore, 1998

Greenia, Earl G.  
*Adjunct Associate Professor*  
BA, University of Vermont, 1989  
MHA, University of Southern California, 1994  
PhD, University of Southern California, 2004

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*Adjunct Assistant Professor*  
MA, Fletcher School of Law and Diplomacy, Tufts University, 1972  
DrJur, Free University Berlin, 1974

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*Adjunct Professor*  
BS, University of Wisconsin, 1953  
MA, University of South Dakota, 1954  
PhD, Emory University, 1963

Grosse, Daniel J.  
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BS, University of Michigan, 1978  
MS, University of Washington, 1982  
PhD, University of Washington, 1994

Grunin, Susan Krup  
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BA, Anderson University, 1973  
MA, University of Illinois, Chicago, 1975  
MA, University of Illinois, Chicago, 1980  
PhD, University of Illinois, Chicago, 1990

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BA, Southern Connecticut State College, 1966  
BA, University of Connecticut, 1968  
MBA, New York Institute of Technology, 1986  
MAS, Johns Hopkins University, 1990

Gulbro, Robert D.  
*Adjunct Professor*  
BS, University of Alabama, 1968  
MBA, University of Alabama, 1969  
DBA, Mississippi State University, 1991

Gupta, Ashis  
*Adjunct Professor*  
PhD, Boston University, 1976

Haddad, Mahmoud M.  
*Adjunct Professor*  
BS, Minnesota State University, 1975  
MBA, Minnesota State University, 1977  
PhD, University of Alabama, 1984

Haines, Joel D.  
*Adjunct Assistant Professor*  
BS, York College PA, 1985  
MS, University of Maryland University College, 1998

Hall, Dennis C.  
*Adjunct Associate Professor*  
MS, University of Illinois at Chicago, 1962  
MS, George Washington University, 1974

Hallion, Marie E.  
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BA, University of Maryland, College Park, 1963  
MA, University of Maryland, College Park, 1964  
PhD, University of Maryland, College Park, 1968
Halstead, John M.  
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BS, University of Connecticut, 1996  
MS, Boston College, 1997  
PhD, University of Connecticut, 2001  

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*Adjunct Associate Professor*  
BS, Barry University, 1994  
MS, Barry University, 1996  
EdD, George Washington University, 2006  

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BA, Simon Fraser University, 1970  
EdD, Queen’s University, 1978  
MPA, Carleton University, 1982  

Hanouille, Leon J.  
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BS, Merrimac College, 1969  
MS, Syracuse University, 1971  
PhD, Syracuse University, 1983  

Hanson, Greg J.  
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BS, U.S. Air Force Academy, 1977  
MS, Air Force Institute of Technology, 1981  
PhD, University of Central Florida, 1987  

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BSN, George Mason University, 1982  
MS, Georgetown University, 1984  
PhD, George Mason University, 1993  

Harding, George  
*Collegiate Associate Professor*  
BS, New England College, 1963  
MBA, University of Delaware, 1968  
EdD, Wilmington College, 1996  

Hardy, Stuart B.  
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BA, Bates College, 1968  
MA, Georgetown University, 1973  
PhD, Georgetown University, 1974  

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BA, State University of New York at Stony Brook, 1975  
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MA, Antioch University McGregor, 1994  
JD, University of Wisconsin, 1978  

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BS, West Virginia University, 1991  
MS, West Virginia University, 1991  
JD, Wake Forest University, 1994  

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*Collegiate Associate Professor*  
BA, Hood College, 1984  
MS, Johns Hopkins University, 1986  
PhD, University of Maryland, College Park, 1993  

Head, Stephany  
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BA, National-Louis University, 1988  
MBA, College of William and Mary, 1989  
PhD, University of Maryland, College Park, 1999  

Heffner, Michael Clifford  
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DM, University of Maryland University College, 2006  

Helfers, Eric C.  
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BS, College of Charleston, 1966  
MS, University of Southern California, 1973  

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BA, Utica College of Syracuse University, 1964  
MS, University of Wyoming, 1966  
PhD, University of New Mexico, 1971  

Henry, Byron K.  
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MA, George Washington University, 1988  
PhD, Texas A&M University, 1999  

Herb, Ann M.  
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BA, University of Kentucky, 1983  
PhD, University of Tennessee Knoxville, 1987  

Herndon, James S.  
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BS, Old Dominion University, 1973  
MA, Pepperdine University, 1978  
PhD, Old Dominion University, 1986  
PhD, University of Sarasota, 2002  

Hiatt, Stephen R.  
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BS, Brigham Young University, 1970  
MBA, Arizona State University, 1976  
PhD, Arizona State University, 1983  

Hillery, Joseph M.  
*Adjunct Professor*  
BS, Loyola University, 1965  
MA, University of Detroit, 1968  
PhD, University of Akron, 1973  
BS, University of Maryland University College, 1979  

Hilliard, Philip E.  
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BS, Georgia Institute of Technology, 1986  
MBA, Georgia State University, 2000  
MS, Florida State University, 2003  

Hinkle, Norman W.  
*Adjunct Professor*  
BBA, Marshall University, 1982  
MBA, Marshall University, 1985  
DBA, Nova Southeastern University, 2004  

Hinton, Diana P.  
*Adjunct Professor*  
BS, Brooklyn College, City University of New York, 1974  
MS, Long Island University, 1983  
JD, Brooklyn College, City University of New York, 2001  

Hoferek, Mary J.  
*Adjunct Professor*  
BA, Trenton State College, 1965  
MA, University of Michigan, 1969  
PhD, University of Wisconsin, 1978  
MS, American University, 2000  

Holmen, Jay S.  
*Adjunct Professor*  
BA, Moorhead State University, 1976  
PhD, University of Minnesota Crookston, 1981  

Horner, Donald H.  
*Adjunct Professor*  
BS, U.S. Military Academy at West Point, 1981  
MS, Massachusetts Institute of Technology, 1985  
DSW, Stanford University, 1992  

Housman, Robert F.  
*Adjunct Associate Professor*  
BA, St. Lawrence University, 1987  
JD, American University, 1990  

Howard, James A.  
*Associate Chair, Management, Accounting, and Finance Department; Program Director, Financial Management; and Collegiate Professor*  
BA, University of Nebraska, 1968  
MBA, Syracuse University, 1976  
PhD, George Washington University, 1991
Hruneni, George A.
Adjunct Assistant Professor
BA, Santa Clara University, 1966
MA, Santa Clara University, 1967
PhD, University of California, 1972

Hrutka, Mary Ellen
Adjunct Professor
BA, Southern Connecticut State University, 1968
MA, University of Maryland, College Park, 1970
PhD, University of Miami, 1983

Hsu, Hsiao Yu
Adjunct Associate Professor
BS, National Taiwan University, 1985
MS, University of Houston, 1989
PhD, University of Houston, 1995

Huang, Li-Ning
Adjunct Associate Professor
BA, National Tsing-Hua University, 1989
MA, University of Maryland, College Park, 1992
MBA, University of Chicago, 2006
PhD, University of Michigan, 1998

Hurley, James M.
Adjunct Professor
BA, Georgetown University, 1975
MA, University of Maryland, College Park, 1976
DPA, George Washington University, 1986

Hurley, Tracy A.
Adjunct Associate Professor
BBA, University of Houston, 1982
MBA, University of Houston, 1984
PhD, University of Houston, 1991

Hynson, Lawrence M. III
Adjunct Professor
BA, Texas Christian University, 1963
MA, Texas Christian University, 1969
PhD, University of Tennessee, 1972

Iaquinto, Anthony L.
Adjunct Professor
BA, University of Minnesota Twin Cities, 1983
MBA, Columbia University, 1985
PhD, Columbia University, 1992

Irwin, Barbara A.
Adjunct Assistant Professor
BA, Salem-Tekiyko University, 1963
MEd, Bowie State University, 1977

Jackson, William K.
Adjunct Professor
BS, Northern Illinois University, 1966
MBA, Northern Illinois University, 1968
PhD, University of Northern Colorado, 1977

Jacobs, Michael A.
Adjunct Assistant Professor
BS, Florida Agriculture & Mechanical University, 1979
JD, Howard University, 1983

Jacobs, Norma M.
Adjunct Professor
BA, University of Texas, 1979
MEd, University of Houston, 1984
PhD, Texas A&M University, 1989

Jaffe, Roger J.
Adjunct Assistant Professor
MS, University of Maryland University College, 2000

Jamso, Kris
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MS, University of Nevada, Las Vegas, 1997
PhD, Arizona State University, 1993
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DEd, North Carolina Central University, 1997
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AB, Regis College, 1964  
MA, Fordham University, 1966  
PhD, University of Illinois, 1976

Orban, Joseph A.  
*Adjunct Associate Professor*  
BA, University of South Dakota, 1976  
MS, Virginia Polytechnic Institute and State University, 1979  
PhD, Virginia Polytechnic Institute and State University, 1981

Orobato, Nosa  
*Adjunct Assistant Professor*  
MD, University of Ibadan, 1983  
MPH, Johns Hopkins University, 1990  
PhD, Johns Hopkins University, 1995  
MBA, Johns Hopkins University, 2004

Ouellette, Robert P.  
*Program Director, Electronic Commerce, and Collegiate Professor*  
BS, University of Montreal, 1962  
PhD, University of Ottawa, 1964  
MBA, New York Institute of Technology, 1988

Owens, Sherdeana L.  
*Adjunct Assistant Professor*  
BA, Goucher College, 1973  
MPA, University of Oklahoma, 1978  
DDS, Baylor College of Dentistry, Texas A&M Health Science Center, 1983

Ozag, David  
*Adjunct Associate Professor*  
BS, University of Maryland, College Park, 1984  
MBA, Mount St. Mary’s College, 1987  
EdD, George Washington University, 2001
Pande, Suchira  
*Adjunct Associate Professor*  
BS, Sri Venkateswara College, 1980  
MS, Indian Agricultural Research Institute, 1982  
PhD, University of Alberta, 1988

Pandit, Ganesh M.  
*Adjunct Associate Professor*  
BCom, University of Bombay, 1983  
MBA, University of Louisiana at Monroe, 1990  
DBA, Louisiana Tech University, 1994

Pang, Leslie  
*Program Director, Information Technology Systems, and Collegiate Professor*  
BS, University of Hawaii, 1974  
MS, University of Nebraska, 1979  
PhD, University of Utah, 1983  
MBA, University of Maryland, College Park, 1988

Parker, Mark L.  
*Adjunct Associate Professor*  
BA, Florida State University, 1988  
MA, Florida State University, 1991

Parks, Janet M.  
*Adjunct Assistant Professor*  
BS, Drexel University, 1985  
MS, University of Maryland University College, 2004

Parlow, Anita L.  
*Adjunct Assistant Professor*  
BA, Syracuse University, 1967  
MS, Oxford College of Emory University, 2004  
JD, Antioch School of Law, 1980

Pathak, Divaker V.  
*Adjunct Assistant Professor*  
BS, Marathwada University, 1966  
MS, University of Maryland, College Park, 2002  
PhD, Purdue University, 1974

Pauli, Richard A.  
*Adjunct Professor*  
BA, Hiram College, 1970  
JD, Boston University, 1973  
MA, Antioch College, 1994

Paulone, Stephen T.  
*Adjunct Assistant Professor*  
BA, Fairfield University  
MBA, Rensselaer Polytechnic Institute, 1995  
MS, Rensselaer Polytechnic Institute, 1997

Peacock, Bruce E.  
*Adjunct Associate Professor*  
BS, Oklahoma State University, 1978  
MS, New Mexico State University, 1984  
PhD, University of Arizona, 1994

Peters, Laurence  
*Adjunct Associate Professor*  
BA, University of Sussex, 1976  
MA, University of London, 1978  
PhD, University of Michigan, Ann Arbor, 1986  
JD, University of Maryland, Baltimore, 1986

Petersohn, Henry  
*Adjunct Assistant Professor*  
BA, University of Pennsylvania, 1952  
MBA, Temple University, 1964  
PhD, American University, 1967

Petrello, George J.  
*Collegiate Professor*  
BA, Montclair State University  
MBA, Seton Hall University  
PhD, New York University, 1969

Phelan, Joseph R.  
*Advisor Assistant Professor*  
BA, New School of Social Research, 1971  
MA, New School of Social Research  
PhD, University of Toronto, 1985

Pickering, Willa  
*Advisor Assistant Professor*  
BA, Oklahoma State University, 1963  
MSEE, University of New Mexico, 1977  
PhD, George Mason University, 2003

Pierce, Barbara L.  
*Advisor Professor*  
BA, University of Rochester, 1959  
MS, University of Rochester, 1962  
PhD, University of Rochester, 1965

Plumley, Joseph P. Jr.  
*Advisor Professor*  
ABJ, University of Georgia, 1967  
MEd, University of Georgia, 1975  
EdD, University of Georgia, 1978

Pomea, Neal F.  
*Advisor Assistant Professor*  
BA, University of Louisiana, Lafayette, 1976  
BA, University of Louisiana, Lafayette, 1982  
MLS, University of Maryland  
University College, 1997

Porto, Stella  
*Program Director, Master of Distance Education and Collegiate Professor*  
MS, Pontifical Catholic University of Rio de Janeiro, 1991  
PhD, Pontifical Catholic University of Rio de Janeiro, 1995

Portugal, Frank H.  
*Adjunct Professor*  
BS, Columbia University, 1961  
PhD, University of Illinois at Chicago, 1967

Posluns, Ronald J.  
*Collegiate Associate Professor*  
BCom, Concordia University, 1963  
MBA, McGill University, 1965  
PhD, Syracuse University, 1972

Powell, Douglas A.  
*Adjunct Professor*  
BA, University of Maryland, College Park, 1979  
BA, University of Maryland, College Park, 1988  
MA, University of Maryland, College Park, 1992  
PhD, University of Maryland, College Park, 1999

Power, Frank R.  
*Advisor Associate Professor*  
BCE, Manhattan College, 1978  
JD, Catholic University of America, 1984  
MLS, Rutgers University, 1993  
PhD, Florida State University, 2002

Procaccino, Joseph A.  
*Advisor Associate Professor*  
BA, George Washington University, 1973  
JD, American University, 1976  
MFS, George Washington University, 1979

Promboin, Ronald L.  
*Collegiate Professor*  
BA, Williams College, 1966  
MA, Stanford University, 1968  
PhD, Stanford University, 1971

Quinn, Kathy S.  
*Advisor Associate Professor*  
MEd, University of South Carolina Columbia, 1988  
PhD, University of South Carolina Columbia, 1998  
MS, University of Maryland  
University College, 2005

Rabatin, Angela J.  
*Advisor Associate Professor*  
BS, University of Pittsburgh, 1974  
MA, St. Francis University of Pennsylvania, 1977  
JD, Duquesne University, 1981  
LLM, University of Baltimore, 1996
Rabin, Bonnie R.
Adjunct Professor
BA, New York University, 1981
MS, Cornell University, 1986
PhD, Cornell University, 1987

Rabin, Mohammed Y.
Adjunct Professor
BA, Sanyeh University, 1980
MBA, American University, 1985
PhD, University of Mississippi, 1991

Radlauer, Charles B.
Adjunct Professor
MD, Washington University, 1961
JD, St. Thomas University, 2000

Rend-Tanali, Irmak
Program Director, Homeland Security, and Collegiate Assistant Professor
MBA, Middle East Technical University, 1995
DSc, George Washington University, 2002

Reynolds, Arthur
Collegiate Professor
BA, City College of New York, 1970
MA, University of Minnesota, 1973
MHA, University of Minnesota, 1976
JD, William Mitchell College of Law, 1977

Rhodes, Shelton
Adjunct Associate Professor
BA, Virginia Military Institute, 1977
MA, Howard University, 1985
PhD, Old Dominion University, 1994

Richardson, John M.
Adjunct Professor
BA, University of Colorado, 1942
MA, Harvard University, 1947
PhD, Harvard University, 1951

Rife, Patricia
Adjunct Associate Professor
BS, Grand Valley State University, 1978
PhD, Union University, 1983

Rivkin, Malcolm
Adjunct Associate Professor
AB, Harvard College, 1953
MCE, Massachusetts Institute of Technology, 1956
PhD, Massachusetts Institute of Technology, 1964

Robbani, Mohammad G.
Adjunct Associate Professor
BCom, University of Dhaka, 1980
MCom, University of Dhaka, 1982
MBA, University of Massachusetts, 1988
PhD, Florida International University, 1994

Roberts, William H., Jr.
Adjunct Assistant Professor
BS, Jacksonville University, 1979
MBA, Augusta State University, 1981
MS, Naval Postgraduate School, 1987
MPA, Troy State University, 1995
DPA, George Mason University, 2007

Roberson, Ponchitta J.
Adjunct Assistant Professor
BA, District of Columbia Teachers College, 1974
MA, George Washington University, 1989
EdD, George Washington University, 1998

Roberts, Elizabeth
Adjunct Assistant Professor
BA, University of Virginia, 1989
MLS, University of Kentucky, 1999

Roberts, Judith M.
Adjunct Assistant Professor
BA, York University, 1968
MA, University of Toronto, 1972

Robertson, James A.
Collegiate Assistant Professor
BS, University of Houston, Clear Lake, 1989
MS, University of Dayton, 1995

Roblyer, Margaret D.
Adjunct Professor
BA, University of Maryland, College Park, 1969
MEd, Pennsylvania State University, 1972
PhD, Florida State University, 1978

Roman, Cynthia
Adjunct Associate Professor
BA, University of Virginia, 1976
MEd, University of Georgia, 1977
EdD, Virginia Polytechnic Institute and State University, 1994

Rosenberg, Marvin L.
Adjunct Assistant Professor
BS, University of Houston, 1965
MS, George Washington University, 1976
DSc, George Washington University, 2005

Ross, Jane
Program Director, Master of Business Administration, and Collegiate Professor
BS, Taylor University, 1969
MA, State University of New York at Binghamton, 1972
PhD, University of Cambridge, 1987

Rubin, Eugene
Adjunct Professor
BA, Ohio Wesleyan University, 1963
MS, Kansas State University, 1965
MA, University of Michigan, 1971
PhD, University of Michigan, 1971
Ruffini, Michael F.
*Adjunct Associate Professor*
BA, Rowan University, 1979
BS, West Chester University, 1981
MS, West Chester University, 1985
MEd, Widener University, 1995
EdD, Widener University, 1997

Russotto, Thomas
*Adjunct Assistant Professor*
BS, Stevens Institute of Technology, 1966
MBA, Loyola College, 1975
MBA, George Washington University, 1991
PhD, George Washington University, 1993

Sadhwani, Arjan T.
*Adjunct Professor*
BA, University of Bombay, 1956
MCom, University of Bombay, 1959
PhD, Michigan State University, 1971

Sadiq, Salman
*Adjunct Assistant Professor*
BA, George Washington University, 1993
MBA, George Washington University, 1994
JD, Emory University, 1997

Salmon, Peter M.
*Adjunct Assistant Professor*
BS, University of Cape Town, 1980
MS, Stanford University, 1984
PhD, Stanford University, 1989

Sapp, J. Robert
*Adjunct Associate Professor*
BA, University of Maryland, Baltimore County, 1986
MA, University of Maryland, Baltimore County, 1990
MS, Johns Hopkins University, 1992
EdD, University of Pennsylvania, 2001

Saunders, John H.
*Adjunct Associate Professor*
BS, Pennsylvania State University, 1971
MBA, George Washington University, 1983
PhD, George Washington University, 1994

Savage, Howard A.
*Adjunct Professor*
BA, Oklahoma City University, 1968
PhD, University of Texas at Austin, 1978
MA, Johns Hopkins University, 1985

Sayala, Dash
*Adjunct Associate Professor*
BS, Osmania University, 1962
MS, Osmania University, 1964
MS, University of New Mexico, 1972
PhD, George Washington University, 1978

Sayani, Hasan H.
*Program Director, Software Engineering, and Collegiate Professor*
BSE, University of Michigan, 1965
MSE, University of Michigan, 1966
PhD, University of Michigan, 1973

Scanlan, Eugene A.
*Adjunct Associate Professor*
BA, Lafayette College, 1964
MEd, University of New Hampshire, 1968
PhD, Loyola University Chicago, 1972

Scanlan, Joanne B.
*Adjunct Assistant Professor*
BA, University of California, Santa Cruz, 1973
MA, Northwestern University, 1977
PhD, Northwestern University, 1982

Scheira, Thomas R.
*Adjunct Associate Professor*
BA, State University of New York at Buffalo, 1979
MEd, State University of New York at Buffalo, 1987
PhD, State University of New York at Buffalo, 1991

Schultz, Christopher
*Adjunct Associate Professor*
BA, State University of New York Regents College, 1989
MA, Saint Louis University, 1990
PhD, University of New Mexico, 1996
MBA, University of Texas at Austin, 2000

SchWeber, Claudine
*Collegiate Professor*
BA, Hunter College, City University of New York, 1968
MA, State University of New York at Buffalo, 1970
PhD, State University of New York at Buffalo, 1978

Sempeles, Leigh A.
*Adjunct Assistant Professor*
BA, Wright State University, 1979
MBA, Antioch College, 1994
JD, University of Dayton, 1983

Sen, Jayanta
*Collegiate Professor*
BS, Indian Institute of Technology, 1985
MS, Yale University, 1992
PhD, University of Chicago, 2000

Serrano, Leonardo
*Adjunct Associate Professor*
BS, National Autonomous University of Mexico, 1978
MA, Concordia University, 1998
MBA, University of California, Los Angeles, 1991
PhD, Tulane University, 2003

Sha, Bey-Ling
*Adjunct Assistant Professor*
BA, Purdue University at West Lafayette, 1993
MA, University of Maryland, College Park, 1995
PhD, University of Maryland, College Park, 1999

Shahdad, B. Moe
*Program Director, Technology Management, and Collegiate Professor*
BS, University of Tehran, 1966
MS, Queen's University, 1971
PhD, University of London, 1974

Sheehan, Nancy J.
*Adjunct Assistant Professor*
BA, National-Louis University, 1988
JD, State University of New York at Buffalo, 1994

Shepherd, Norman Glenn
*Adjunct Associate Professor*
BS, Appalachian State University, 1980
BS, University of North Carolina at Greensboro, 1977
MEd, Elon College, 1990
EdD, North Carolina State University, 1998

Sherlock, John
*Adjunct Assistant Professor*
BS, James Madison University, 1982
MBA, University of Maryland, College Park, 1988
EdD, George Washington University, 2000

Sherlock, Robert
*Collegiate Professor*
BS, University of Utah, 1973
JD, University of Utah, 1976
MPA, University of Utah, 1985

Shilesky, Donald
*Adjunct Assistant Professor*
BS, University of Cincinnati, 1964
MS, University of Cincinnati, 1966
DSc, Washington University, 1973

Shin, Hung S.
*Adjunct Professor*
BA, Yonsei University, 1976
MBA, University of Alabama, 1981
DBA, Pennsylvania State University, 1991
Shirani, Ashraf I.
Adjunct Professor
MBA, University of Arkansas at Little Rock, 1989
MS, Cornell University, 1977
PhD, University of Mississippi, 1994

Shirazi, Joyce T.
Program Director, Technology Management, and Collegiate Professor
BS, Howard University, 1977
MS, University of Tennessee, 1988
DSc, George Washington University, 1994

Shoukat, Michael M.
Collegiate Associate Professor
BS, Memphis State University, 1982
MS, Air Force Institute of Technology, 1987
PhD, University of Missouri–Rolla, 1992

Sicotte, Hugues B.
Adjunct Assistant Professor
BS, McGill University, 1989
MA, Princeton University, 1991
PhD, Princeton University, 1995

Silard, Con D. Jr.
Adjunct Assistant Professor
BS, American University, 1973
BS, University of Maryland University College, 2000

Simmons, Donald E.
Adjunct Professor
BS, Syracuse University, 1963
MBA, University of Missouri–Columbia, 1971
PhD, State University of New York at Binghamton, 2001

Sledjeski, Darren D.
Adjunct Associate Professor
BS, College of William and Mary, 1985
PhD, University of Maryland, College Park, 1989

Smith, Linda L.
Collegiate Assistant Professor
BS, University of Tennessee
MS, University of Tennessee
MA, Columbia University, 1994
EdD, Columbia University, 1995

Smith, Walter P.
Adjunct Associate Professor
BS, Ohio State University, 1988
BA, Marietta College, 1992
PhD, Ohio State University, 1998

Stegmann, Juan P.
Adjunct Professor
MS, Buenos Aires Institute of Technology, 1980
PhD, Pacific Western University, 2001
MBA, University of Warsaw, 2004

Steinheiser, Frederick H.
Adjunct Associate Professor
BA, University of Michigan, 1966
MA, University of Cincinnati, 1969
PhD, University of Cincinnati, 1970

Steube, Gerard
Adjunct Associate Professor
BA, Divine Word College, 1970
MS, Johns Hopkins University, 1974
PhD, Capella University, 2004

Stewart, James J.
Program Director, Master of Business Administration, and Collegiate Professor
MS, American University, 1979
DSc, George Washington University, 1988

Stieber, William G.
Adjunct Professor
MBA, LaSalle University, 1980
PhD, Temple University, 1991

Stone, Theodore E.
Adjunct Professor
BA, University of Maryland, College Park, 1976
MA, University of Maryland, College Park, 1988
PhD, University of Maryland, College Park, 1991

Stover, Mary Liana
Adjunct Professor
BA, Kansas State University Manhattan, 1970
MA, University of Hawaii at Manoa, 1980
MA, University of Hawaii at Manoa, 1983
PhD, University of Hawaii at Manoa, 1990

Strange, Martha L.
Adjunct Professor
BS, Virginia State University, 1970
MS, Pennsylvania State University, 1989
PhD, Pennsylvania State University, 1993

Sturm, Philip R.
Adjunct Associate Professor
BS, Murray State University, 1970
MBA, Murray State University, 1971
PhD, Virginia Commonwealth University, 1998
Sullo, Elaine  
*Adjunct Assistant Professor*  
BA, University of Connecticut, 1992  
MLS, Southern Connecticut State, 2002

Sumrall, William H. III  
*Adjunct Professor*  
BA, Louisiana Tech University, 1971  
MBA, Delta State University, 1990  
EdD, Arkansas State University, 2006

Sundararaghavan, Pillai Boothamgudi  
*Adjunct Professor*  
MBA, Indian Institute of Management, 1970  
PhD, University of Maryland, College Park, 2000

Sutherland, Alan R.  
*Collegiate Professor*  
BFA, Pratt Institute, 1964  
PhD, New York University, 1984

Sweeney, Michael  
*Adjunct Associate Professor*  
BA, Aquinas College, 1975  
BS, Aquinas College, 1975  
MBA, University of Detroit, 1977  
PhD, University of Kentucky, 1994

Szporer, Michael M.  
*Collegiate Associate Professor*  
BA, Hunter College, 1969  
MA, Indiana University Bloomington, 1980  
PhD, Indiana University Bloomington, 1980

Tarek, Ahmed  
*Adjunct Associate Professor*  
BS, Bangladesh University of Engineering and Technology, 1989  
MS, Nagoya Gakuin University, 1999  
PhD, Texas Tech University, 2001

Tenenbaum, Jacob E.  
*Adjunct Professor*  
BS, University of Pittsburgh, 1969  
MPH, University of Pittsburgh, 1973  
DPA, Nova University, 1984

Terrell, Sharron L.  
*Adjunct Associate Professor*  
BA, Marygrove College, 1980  
MA, University of Notre Dame, 1986  
PhD, University of Notre Dame, 1993

Terwilliger, Thom  
*Adjunct Associate Professor*  
BS, Christopher Newport College 1983  
MBA, Golden Gate University, 1983  
EdD, College of William and Mary, 1992

Thayer, Richard  
*Collegiate Professor*  
BA, Mary Immaculate Seminary and College, 1958  
PhD, Saint Louis University, 1966

Thomas, Douglas E.  
*Adjunct Assistant Professor*  
BA, Brigham Young University, 1996  
PhD, Texas A&M University, 2001

Thomas, Jennifer A.  
*Adjunct Assistant Professor*  
BA, St. Mary’s College of Maryland, 1995  
MLS, University of Maryland, College Park, 2000

Tillery-Larkin, Rochelle  
*Adjunct Assistant Professor*  
BA, Howard University, 1993  
MA, University of Maryland, College Park, 1995  
PhD, Southern Illinois University, 1999

Tinerella, Vincent P.  
*Adjunct Associate Professor*  
BA, Northeastern Illinois University, 1982  
MA, DePaul University, 1994  
MLIS, Dominican University, 1998

Toplin, Marc B.  
*Adjunct Associate Professor*  
BA, Temple University, 1975  
MA, University of Maryland, College Park, 1977  
MBA, American University, 1986

Tonowski, Richard F.  
*Adjunct Associate Professor*  
BA, Manhattan College, 1970  
MS, Rutgers University, 1977  
PhD, Rutgers University, 1978

Triffit, Tom L.  
*Collegiate Professor*  
BBA, University of Central Oklahoma, 1973  
BS, Oklahoma Baptist University, 1975  
ME, University of Central Oklahoma, 1977  
PhD, University of Oklahoma, 1985

Tsai, Henry W. H.  
*Adjunct Associate Professor*  
BS, National Chung-Hsing University, 1973  
MS, National Taiwan University, 1975  
PhD, University of Maryland, College Park, 1985

Tschechtelin, James D.  
*Adjunct Professor*  
BA, University of Kansas, 1965  
MA, Ohio University, 1967  
EdD, George Washington University, 1977

Tunon, Johanna R.  
*Adjunct Professor*  
BA, Valparaiso University, 1971  
MLS, Texas Woman’s University, 1989  
EdD, Nova Southeastern University, 1999

Turner, Marvin W.  
*Adjunct Associate Professor*  
BBA, Howard University, 1981  
MBA, George Washington University, 1988  
JD, Georgetown University, 1998

Umber, Wanda L.  
*Adjunct Professor*  
BS, Lubbock Christian College, 1979  
MS, Arizona State University, 1982  
EdD, University of New Mexico, 1999

Uri, Noel D.  
*Adjunct Professor*  
BA, San Diego State College, 1967  
MA, San Diego State College, 1969  
PhD, University of Illinois, 1974

Usilancer, Brian  
*Adjunct Professor*  
BS, New York University, 1962  
MS, New York University, 1963  
DSc, George Washington University, 1971

Vagle, Sheila L.  
*Adjunct Assistant Professor*  
BS, Valley City State University, 1991  
JD, North Dakota State University, 1994

Van Breda, Michael F.  
*Adjunct Professor*  
BS, University of Stellenbosch, 1961  
MBA, University of Cape Town, 1969  
PhD, Stanford University, 1979

Van Ornam, Donald C.  
*Adjunct Professor*  
BA, La Sierra University, 1958  
MS, University of California, Los Angeles, 1966  
PhD, Claremont Graduate School, 1995

Versace, Stephen V.  
*Collegiate Professor*  
BA, University of Maryland, College Park, 1970  
MS, Central Missouri State University, 1972  
PhD, University of Maryland, College Park, 1978
<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Alma Maters</th>
</tr>
</thead>
</table>
| Viamonte, Gail    | Chair, Teacher Education Programs, and Collegiate Associate Professor | BA, Alfred University, 1971  
                     |                               | MA, Pennsylvania State University, 1996  
                     |                               | PhD, Pennsylvania State University, 1996 |
| Vikas, Shree      | Adjunct Assistant Professor  | BS, Indian School of Mines, 1989  
                     |                               | MEng, Syracuse University, 1974  
                     |                               | PhD, State University of New York at Albany, 1998 |
| Vincent, Carolyn D. | Adjunct Assistant Professor      | BS, Arkansas State University, 1989  
                     |                               | MBA, Strayer University, 1995  
                     |                               | PhD, George Washington University, 2006 |
| Vockley, Joseph G. | Adjunct Associate Professor  | BS, Pennsylvania State University, 1983  
                     |                               | PhD, University of Delaware, 1991 |
| Vucetic, Jelena    | Adjunct Assistant Professor  | BS, University of Belgrade, 1983  
                     |                               | MSCS, University of Belgrade, 1986  
                     |                               | PhD, University of Belgrade, 1990 |
| Wakim, Nagi T.    | Adjunct Professor  | BS, College of Staten Island, City University of New York, 1983  
                     |                               | MS, Polytechnic Institute of New York, 1985  
                     |                               | PhD, Polytechnic University, 1989 |
| Wajert, Susan C.  | Adjunct Professor  | BS, Bowling Green State University, 1976  
                     |                               | MBA, University of Toledo, 1986  
                     |                               | PhD, Union Institute and University, 1997 |
| Waldrop, Dennis Jon | Adjunct Professor  | BA, Pennsylvania State University, 1977  
                     |                               | MA, University of California, Los Angeles, 1983  
                     |                               | DM, University of Maryland  
                     |                               | University College, 2007 |
| Walker, Kenton B. | Adjunct Professor  | BA, University of Wisconsin–Whitewater, 1974  
                     |                               | MS, University of Wisconsin–Whitewater, 1978  
                     |                               | PhD, Texas A&M University, 1985 |
| Wallace, Patricia M. | Adjunct Professor  | BA, University of Texas at Austin, 1969  
                     |                               | MS, University of Maryland University College, 2000  
                     |                               | PhD, University of Texas at Austin, 1973 |
| Wandersee, Kim    | Adjunct Assistant Professor  | MS, University of Maryland University College, 2000  
                     |                               | MS, Missouri State University  
                     |                               | BS, University of Missouri |
| Ward, Raymond C.  | Adjunct Professor  | BA, State University of New York  
                     |                               | at Stony Brook, 1979  
                     |                               | MA, State University of New York  
                     |                               | at Binghamton, 1982  
                     |                               | MS, Central Michigan University, 1989  
                     |                               | PhD, Capella University, 2002 |
| Watson, Joel C.   | Adjunct Associate Professor  | BS, University of Virginia, 1985  
                     |                               | PhD, University of Utah, 2004 |
| Watson, Rudy J.   | Adjunct Assistant Professor  | BA, George Washington University, 1976  
                     |                               | MBA, George Washington University, 1979  
                     |                               | MS, George Washington University, 1999  
                     |                               | PhD, George Washington University, 2007 |
| Watts, Diana L.   | Adjunct Associate Professor  | MS, Johns Hopkins University, 1976  
                     |                               | PhD, University of California, Berkeley, 1989 |
| Weatherford, Smiley W. | Adjunct Associate Professor      | BBA, University of Georgia, 1966  
                     |                               | MHA, Georgia State University, 1973  
                     |                               | PhD, University of Georgia, 1982 |
| West, Barry C.    | Adjunct Assistant Professor  | BS, Northern Michigan University, 1985  
                     |                               | MS, University of Maryland University College, 1990  
                     |                               | MS, University of Maryland University College, 2002 |
| White, Lawrence M. | Adjunct Associate Professor  | BA, King's College, 1964  
                     |                               | MA, Fielding Institute, 1995  
                     |                               | PhD, Fielding Institute, 1997 |
| White, Valarie M. | Adjunct Assistant Professor  | BS, Southern University at New Orleans, 1984  
                     |                               | MA, California State University, Los Angeles, 1993  
                     |                               | PhD, Jackson State University, 2006 |
| Whittemore, Abel A. | Adjunct Professor  | BA, Loma Linda University, 1979  
                     |                               | MS, Loma Linda University, 1982  
                     |                               | DBA, Alliant International University, 1986 |
| Wilcox, Bonita    | Adjunct Associate Professor  | BS, California Institute of Technology, 1962  
                     |                               | PhD, University of Maryland, College Park, 1971 |
| Williams, Robert S. | Adjunct Assistant Professor  | BS, California State University, 1984  
                     |                               | MBA, University of Michigan, 1986  
                     |                               | PhD, University of Michigan, 1994 |
| Williams, Victoria R. | Collegiate Assistant Professor        | BS, University of Maryland University College, 1994  
                     |                               | MS, University of Maryland University College, 2000 |
| Williams-Stanton, Sonya | Adjunct Associate Professor      | BS, Brown University, 1984  
                     |                               | MBA, University of Michigan, 1986  
                     |                               | PhD, University of Michigan, 1994 |
| Wilmat, Annette   | Collegiate Associate Professor  | BS, Oklahoma State University, 1991  
                     |                               | MS, Oklahoma State University, 1991  
                     |                               | PhD, University of Oklahoma, 1994 |
| Windelberg, Marjorie E. | Adjunct Associate Professor      | BA, University of Rochester, 1973  
                     |                               | PhD, University of North Carolina, 1978 |
| Winters, Dennis E. | Collegiate Associate Professor  | BA, Western Montana College, 1958  
                     |                               | MA, University of Montana, 1960  
                     |                               | PhD, Southern Illinois University, 1968 |
| Witz, Laura Drake | Collegiate Associate Professor  | BA, Southern Illinois University, 1986  
                     |                               | MA, Michigan State University, 1993  
                     |                               | PhD, Michigan State University, 1995 |
Wolf, Daniel
Adjunct Assistant Professor
BS, Case Institute of Technology, 1967
MS, University of Maryland, College Park, 1979

Wolk, Peter
Adjunct Associate Professor
BA, Trinity College, 1977
ME, Harvard University, 1978
JD, American University, 1984

Wolod, Larry B.
Adjunct Associate Professor
BS, University of Baltimore, 1976
MS, University of Hartford, 1978
JD, Potomac School of Law, 1982
LLM, Georgetown University, 1994

Wood, James D.
Adjunct Professor
BS, University of Sheffield, 1965
MBA, Rutgers University, 1992
PhD, Rutgers University, 2001

Woodward, Katherine S.
Program Director, Teacher Education, and
Collegiate Associate Professor,
BA, Harvard University, 1972
MAT, Brown University, 1973
PhD, University of Maryland, College Park, 1988

Wright-Brown, Cecelia
Adjunct Assistant Professor
DEng, Morgan State University, 2005

Yates, Frances
Adjunct Assistant Professor
BA, Purdue University, 1979
MA, Indiana University, 1981

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MBA, Indiana University, 1985
PhD, Ohio State University, 1987

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MS, Virginia Polytechnic Institute and State
University, 1993
PhD, Virginia Polytechnic Institute and State
University, 2002

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BS, Renmin University of China, 1994
MS, Renmin University of China, 1997
PhD, George Washington University, 2007

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MS, Moorhead State University, 1992
MS, Oregon State University, 1997
PhD, Oregon State University, 2003

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Student Classification for Admission, Tuition, and Charge Differential Purposes
(Approved by the Board of Regents August 28, 1990; Amended July 10, 1998; Amended November 27, 2000; Amended April 11, 2003)

I. Policy

It is the policy of the Board of Regents of the University System of Maryland (USM) to recognize the categories of in-state and out-of-state students for the purpose of admission, tuition, and charge differentials at those institutions where such differentiation has been established.

A. An in-state student is a student whom the university determines to be a permanent resident of the state of Maryland. For the purposes of this policy, “permanent resident” is defined as a person who satisfies all the following conditions and has done so for at least twelve (12) consecutive months immediately prior to and including the last date available to register for courses in the semester/term for which the person seeks in-state status:

1. Is not residing in the state of Maryland primarily to attend an educational institution;
2. Owns and continuously occupies or rents and continuously occupies living quarters in Maryland. There must exist a genuine deed or lease in the individual's name reflecting payments/rents and terms typical of those in the community at the time executed. Persons not having such a lease may submit an affidavit reflecting payments/rents and terms, as well as the name and address of the person to whom payments are made that may be considered as meeting this condition. As an alternative to ownership or rental of living quarters in Maryland, a student may share living quarters in Maryland that are owned or rented and occupied by a parent, legal guardian, or spouse;
3. Maintains within Maryland substantially all personal property;
4. Pays Maryland income tax on all earned taxable income, including all taxable income earned outside the state;
5. Registers all owned motor vehicles in Maryland in accordance with Maryland law;
6. Possesses a valid Maryland driver's license, if licensed, in accordance with Maryland law;
7. Is registered in Maryland, if registered to vote;
8. Receives no public assistance from a state other than the state of Maryland or from a city, county, or municipal agency other than one in Maryland; and
9. Has a legal ability under federal and Maryland law to live permanently without interruption in Maryland.

B. In addition, persons with the following status shall be accorded the benefits of in-state status for the period in which they hold such status:

1. A full-time or part-time (at least 50-percent-time) regular employee of the USM.
2. The spouse or financially dependent child of a full-time or part-time (at least 50-percent-time) regular employee of the USM.
3. A full-time active member of the Armed Forces of the United States whose home of residency is Maryland or one who resides or is stationed in Maryland, or the spouse or a financially dependent child of such a person.
4. For UMUC, a full-time active member of the Armed Forces of the United States on active duty or the spouse of a member of the Armed Forces of the United States on active duty.
5. A graduate assistant appointed through the USM for the semester/term of the appointment. Except through prior arrangement, this benefit is available only for enrollment at the institution awarding the assistantship.

C. Students not entitled to in-state status under the preceding paragraphs shall be assigned out-of-state status for admission, tuition, and charge-differential purposes.

D. Assignment of in-state or out-of-state classification will be made by the university upon an assessment of the totality of facts known or presented to it. The person seeking in-state status shall have the burden of proving that he or she satisfies all requirements.

E. Either of the following circumstances raise a presumption that the student is residing in the state of Maryland primarily for the purpose of attending an educational institution:

1. The student was attending high school or residing outside Maryland at the time of application for admission to a USM institution, or
2. The student is both (a) not financially independent and (b) is financially dependent upon a person who is not a resident of Maryland.

The burden shall be on the student to rebut the presumption.
II. Procedures

A. An initial determination of in-state status will be made by the university at the time a student’s application for admission is under consideration. The determination made at that time, and any determination made thereafter, shall prevail for each semester/term until the determination is successfully challenged in a timely manner.

B. A change in status must be requested by submitting a USM “Petition for Change in Classification for Admission, Tuition, and Charge Differential.” A student applying for a change to in-state status must furnish all required documentation with the petition by the last published date to register for the forthcoming semester/term for which the change in classification is sought.

C. The student shall notify the institution in writing within fifteen (15) days of any change in circumstances that may alter in-state status.

D. In the event incomplete, false, or misleading information is presented, the institution may, at its discretion, revoke in-state status and take disciplinary action provided for by the institution’s policy. Such action may include suspension or expulsion. If in-state status is gained due to false or misleading information, the university reserves the right to retroactively assess all out-of-state charges for each semester/term affected.

E. Each institution of the USM shall develop and publish additional procedures to implement this policy. Procedures shall provide that on request the president or designee has the authority to waive any residency criterion set forth in Section I if it is determined that the student is indeed a permanent resident and the application of the criteria creates an unjust result. These procedures shall be filed with the Office of the Chancellor.

III. Definitions

A. Financially Dependent: For the purposes of this policy, a financially dependent student is one who is claimed as a dependent for tax purposes or who receives more than one-half of his or her support from another person during the twelve- (12-) month period immediately prior to the last published date for registration for the semester or session. If a student receives more than one-half of his or her support in the aggregate from more than one person, the student shall be considered financially dependent on the person providing the greater amount of support.

B. Financially Independent: A financially independent student is one who (1) declares himself or herself to be financially independent as defined herein; (2) does not appear as a dependent on the federal or state income tax return of any other person; (3) receives less than one-half of his or her support from any other person or persons; and (4) demonstrates that he or she provides through self-generated support one-half or more of his or her total expenses.

C. Parent: A parent may be a natural parent, or, if established by a court order recognized under the law of the state of Maryland, an adoptive parent.

D. Guardian: A guardian is a person so appointed by a court order recognized under the law of the state of Maryland.

E. Spouse: A spouse is a partner in a legally contracted marriage.

F. Child: A child is a natural child or a child legally adopted pursuant to a court order recognized under the law of Maryland.

G. Self-Generated: Self-generated describes income that is derived solely from compensation for an individual’s own efforts as evidenced, for example, by federal or state W-2 forms or IRS Form 1099, where interest income is based upon finances created from one’s own efforts. For the purposes of this policy, grants, stipends, awards, benefits, loans, and gifts (including federal and state aid, grants, and loans) may not be used as self-generated income.

H. Regular Employee: A regular employee is a person employed by the USM who is assigned to a state budget line or who is otherwise eligible to enroll in a state retirement system. Examples of categories not considered regular employees are graduate students, contingent employees, and independent contractors.

IV. Implementation

This policy as amended by the Board of Regents on November 27, 2000, shall be applied to all student residency classification decisions made on or after this date.
Religious Observances
(UMUC Policy 51.00)

I. UMUC conforms to the Board of Regents Policy III-5.10 Concerning the Scheduling of Academic Assignments on Dates of Religious Observance, approved on January 11, 1990.

II. So that the academic programs and services of UMUC shall be available to all qualified students who have been admitted to its programs, regardless of their religious beliefs, students shall not be penalized because of observances of their religious holidays. Students who miss a course session because of an observance of their religious beliefs must be allowed

• To make up any examinations, other written tests, or class work;
• To have access to any handouts or other material distributed in class; and
• To have the opportunity to obtain or review any duplicated lecture notes or slides presented in class.

III. UMUC prohibits scheduling examinations on the following religious holidays: Rosh Hashanah, Yom Kippur, and Good Friday.

Shared Governance
(From UMUC Policy 20.20)

In accordance with Board of Regents I-6.00 Policy on Shared Governance in the University System of Maryland, UMUC developed a new worldwide shared governance structure. Each of the three primary stakeholder groups—students, faculty, and staff—of UMUC has an advisory council consisting of elected representatives. These councils advise senior UMUC leadership on broad issues related to the university’s strategic planning, communications, academic initiatives, and other issues. Further, there is a University Advisory Council, made of representatives from each of the three stakeholder councils, to advise and assist the president of UMUC.

Student Advisory Council
The Student Advisory Council consists of twelve (12) student representatives from UMUC locations worldwide and includes both undergraduate and graduate students. Student Advisory Council representatives serve on the overall University Advisory Council, the Graduate Council, and the Undergraduate Curriculum Committee. The Student Advisory Council provides senior management with critical input on a wide variety of institutional initiatives that affect students and student life at UMUC. To learn more about the Student Advisory Council or contact a representative, students should visit the Web page at www.umuc.edu/gov/statc.

Student Drug and Alcohol Use

UMUC complies with all federal, state, and local laws that regulate or prohibit the possession, use, or distribution of alcohol or illicit drugs. Violations of such laws that come to the attention of UMUC officials will be addressed through UMUC procedures, or through prosecution in the courts, or both.

All UMUC students are prohibited by UMUC from unlawfully possessing, using, manufacturing, distributing, or dispensing alcohol or any controlled substance on UMUC premises or at UMUC-sponsored activities. UMUC expects all students to comply with applicable federal, state, and local laws and regulations pertaining to possession, use, manufacture, distribution, or dispensation of alcohol and/or controlled substances.

Any student who violates any of the applicable standards of conduct is subject to corrective disciplinary actions and penalties up to and including expulsion from UMUC academic programs and referral to the appropriate state, federal, and/or local authorities for prosecution in the courts. See www.umuc.edu/inform/report.html for additional information.

Financial Aid—Satisfactory Academic Progress, Graduate
(UMUC Policy 220.31)

Financial aid is intended to meet the financial needs of the student who otherwise could not or would not consider continuing their education. Students who receive financial aid must not only demonstrate financial need, but must also make satisfactory progress as determined by University of Maryland University College in accordance with federal regulations.

Financial aid recipients are required to be in good standing and to maintain satisfactory academic progress toward their degree requirements for each semester/term in which they are enrolled. Satisfactory academic progress, as described below, is evaluated three times annually, in January, June, and August. Failure to maintain satisfactory progress, as described below, may result in cancellation of financial aid awards, and the student may have to repay any funds already received.
Basic Standard for Graduate Students
UMUC’s institutional requirements for minimum satisfactory performance for financial aid recipients are defined as follows:

1. Minimum cumulative grade-point average (GPA).
   Graduate students must maintain a minimum cumulative GPA of 3.0.

2. Minimum passing grade.
   The minimum passing grade for a graduate student is a B grade for each course. A student may not receive a grade of C or below for a course in the most recent semester of enrollment and be considered to meet the minimum academic standards.

3. Minimum cumulative completion rate.
   Graduate students must maintain a minimum cumulative completion rate of two-thirds of credits attempted (67 percent).

4. Maximum timeframe to completion.
   The federally mandated maximum timeframe to complete the program or degree. The student must complete his or her educational program within a time frame no longer than 150 percent of the published length of the educational program (for example, complete his or her program after attempting a maximum of 54 credits for a 36-credit program).

Federal regulations require that UMUC track the academic progress of financial aid recipients from the first date of enrollment at UMUC, whether or not financial aid was received. Credits transferred from all other credit sources will be considered as attempted and completed credits in the evaluation of the completion rate standards.

Students who do not earn their degree within the maximum timeframe to completion, outlined above, will be placed on Financial Aid Denied status, not Financial Aid Probation. No financial aid will be disbursed during subsequent semesters/periods of enrollment unless the student has made an appeal of the Financial Aid Denied and the appeal is granted.

Treatment of W, I, AU, F, S, P, RT, H, and G Grades, No Grade Reported, and Repeated Coursework

1. Course withdrawals (W) after the drop/add period are not included in the GPA calculation, but are considered a non-completion of attempted coursework.

2. Incomplete (I) grades are not included in the GPA calculation and are considered a noncompletion of attempted coursework until the Incomplete grade is replaced with a permanent grade and academic progress can be re-evaluated.

3. An audit (AU) grade or a course taken out of sequence (H) grade is not considered attempted coursework. It is not included in the GPA calculation or completion rate determinations.

4. A satisfactory (S) grade, a passing (P) grade, or a repeat through transfer credit (RT) grade is treated as attempted credits which are earned, but is not included in calculation of GPA.

5. F grades will be treated as attempted credits that were not earned and so will be included both in the calculation of GPA and minimum completion rate.

6. If a grade pending (G) or no grade is assigned, for any reason, it will not be included in the GPA calculation and will not be considered a noncompletion of attempted coursework until a grade is assigned and academic progress is reevaluated.

7. The highest grade earned in a course that is repeated will count in the GPA computation, but every repeated attempt will be included in the completion rate determinations. No financial aid can be disbursed for a repeated attempt if the student already has achieved a passing grade for that course.

Financial Aid Probation Status
Graduate students who fail to meet the minimum 3.0 cumulative grade-point average standard or fail to complete at least two-thirds of cumulative credits attempted or who receive a grade of C or below for a course in the most recent semester/period of enrollment will be placed on Financial Aid Probation for the subsequent semesters/periods of enrollment. Financial aid can be received during the semesters/terms of probation. Financial aid disbursements for the next period of enrollment will be held until the grades and course completions have been reviewed for the probationary semesters/periods of enrollment of Financial Aid Probation.

Students receiving financial aid for the first time will be placed on Financial Aid Probation if they do not meet the minimum grade point average or course completion standards as noted in this policy in a previous semester/period of enrollment at UMUC.

Financial Aid Denied Status
Students who, while on Financial Aid Probation or on Financial Aid Denied status, fail to maintain the minimum completion rate of 67 percent and/or fail to maintain a minimum cumulative GPA of 3.0 or better and/or receive a grade of C or below for a course in the most recent semester/period of enrollment will be placed on Financial Aid Denied status for subsequent semesters/periods of enrollment. No financial aid will be disbursed during
subsequent semesters/periods of enrollment until the student is removed from Financial Aid Denied status.

Graduate students who do not earn their degree within the maximum timeframe to completion will be placed in Financial Aid Denied status. No aid will be disbursed during subsequent semesters/periods of enrollment unless the student has made an appeal and the appeal is granted for that semester/period of enrollment. There are no exceptions to this requirement.

Reinstatement of Aid After Financial Aid Denied Status

Reinstatement of financial aid after a student is placed in Financial Aid Denied status is achieved in one of the following ways:

1. The student submits a written letter of appeal in accordance with the appeal process and the Financial Aid Appeals Committee grants the appeal. The student is placed on Financial Aid Probation for the semester/period of enrollment rather than in Financial Aid Denied status.

2. The student attends UMUC, pays for tuition and fees without the help of student financial aid, and does well enough in the coursework to satisfy all the satisfactory academic progress standards. The student regains aid eligibility in a probationary status. Students who are in Financial Aid Denied status for failure to graduate within the maximum timeframe to completion cannot regain eligibility this way. Students who are beyond the maximum timeframe to completion cannot regain financial aid eligibility except on a semester/period of enrollment-by-semester/period of enrollment basis through the appeal process.

Appeal Process

The student must submit an appeal of Financial Aid Denied status in writing to the associate director of Financial Aid by the date specified in the Financial Aid Denied notification letter. The Financial Aid Appeals Committee will review the appeal and notify the student in writing of their decision within 14 working days after the Appeals Committee meets and makes its determination.

Disclosure of Student Records

(UMUC Policy 210.14)

I. Introduction

UMUC complies with the Family Educational Rights and Privacy Act (FERPA) of 1974 (also known as “the Buckley Amendment”) which protects the privacy of students. In accordance with FERPA, this policy informs students of their rights to

A. Inspect and review their education records;
B. Seek an amendment of their education records, where appropriate;
C. Limit disclosure to others of personally identifiable information from education records without the student’s prior written consent; and
D. File formal complaints alleging a violation of FERPA with the Department of Education.

II. Definitions

A. “Student” is an individual who is attending or who has attended UMUC. It does not include any applicant for admission to UMUC who does not matriculate, even if he or she previously attended UMUC.
B. “Education records” are records that contain information directly related to a student that are maintained by UMUC or by a third party on behalf of UMUC. The following records are not education records:
1. Campus police or security (“law enforcement unit”) records maintained solely for law enforcement purposes and maintained by that law enforcement unit.
2. Employment records, except where a currently enrolled student is employed as a result of his or her status as a student.
3. Records of a physician, psychologist, or other recognized professional or paraprofessional if made or used only for treatment purposes and available only to persons providing treatment.
4. Records that contain only information relating to a person’s activities after that person is no longer a student at UMUC.
III. Inspection and Review of Education Records by Students

A. Right of Access
1. Each student has a right of access to his or her education records, except financial records of the student's parents and confidential letters of recommendation received prior to January 1, 1975.
2. A student may, by a signed writing, waive his or her right of access to confidential recommendations in three areas: admission to any educational institution, job placement, and receipt of honors and awards. UMUC will not require such waivers as a condition for admission or receipt of any service or benefit normally provided to students. If the student chooses to waive his or her right of access, he or she will be notified, upon written request, of the names of all persons making confidential recommendations. Such recommendations will be used only for the purpose for which they were specifically intended. A waiver may be revoked in writing at any time; and the revocation will apply to all subsequent recommendations, but not to recommendations received while the waiver was in effect.

B. Custodians of Education Records
The custodian of education records is
1. For UMUC Adelphi: the registrar located in Adelphi, Maryland.
2. For UMUC Asia: the registrar located in Tokyo, Japan.
3. For UMUC Europe: the registrar located in Heidelberg, Germany.
4. For Mannheim: the registrar located in Heidelberg, Germany.
5. For Schwäbisch Gmünd: the registrar located in Adelphi, Maryland.

C. Procedure to Request Review and/or Inspection of Education Records
Requests for review and/or inspection of education records should be made in writing to the appropriate custodian of records, as defined above. The custodian of records or designee will comply with a request for access within a reasonable time by arranging for the student to review his or her records in the presence of a staff member. If facilities permit, a student may obtain copies of his or her records by paying reproduction costs. The fee for copies is 50 cents per page. UMUC will not provide copies of any transcripts in the student's records other than the student's current UMUC transcript. Official transcripts (with the seal of UMUC) will be provided for a separate fee.

IV. Amendment of Education Records
Students may request an amendment of their education records in accordance with this procedure.

A. Request to Amend Education Records
A student who believes that his or her education record is inaccurate, misleading, or in violation of the student's rights of privacy may ask the custodian of the education records to amend the record. The custodian of the education records or designee will decide whether to amend the record within a reasonable time after the request. If the custodian of the education records or designee decides not to amend the record, he or she will inform the student of the right to a hearing.

B. Hearings
1. A student may submit a written request for a hearing to challenge the content of his or her education records to the university registrar. The written request must state what records the student believes are inaccurate, misleading, or in violation of the privacy rights of the student.
2. A hearing will be conducted by the university registrar or designee. The hearing may take place via telephone or video conferencing. The student will be given an opportunity to present evidence relevant to the issues raised and may be assisted or represented by individuals of his or her choice at his or her own expense, including an attorney.
3. Within a reasonable period of time after the conclusion of a hearing, the university registrar will notify the student in writing of his decision. The written decision will include a summary of the evidence and the reasons for the decision.
   a. If the university registrar determines that the education record is inaccurate, misleading, or in violation of the privacy of the student, the education records will be amended. The university registrar will inform the student of the amendment in writing.
   b. If, as a result of the hearing, the university registrar decides that the education record is not inaccurate, misleading, or otherwise in violation of the privacy rights of the student, he will inform the student of the right to place a statement in the record commenting on the contested information in the record or stating why he or she disagrees with the decision of the agency or institution, or both. Any such explanation will be kept as part of the student's record as long as the contested portion of the record is kept and will be disclosed whenever the contested portion of the record is disclosed.
V. Disclosures

UMUC will not disclose education records or the personally identifiable information contained therein unless permitted by FERPA and under the following circumstances:

A. Prior Written Consent
The custodian of the records will provide the education records or personally identifiable information contained therein if the student provides prior written consent that the information may be disclosed. The consent must
1. Specify the records that may be disclosed;
2. State the purpose for the disclosure;
3. Identify to whom the disclosure is to be made; and
4. Be signed and dated by the student.
At the student’s request and expense, a copy of the records disclosed will be provided to the student.

B. Directory Information
1. UMUC designates the following categories of information as directory information:
   a. Name;
   b. Major field of study;
   c. Dates of attendance;
   d. Degrees and awards received;
   e. Previous educational institution most recently attended; and
   f. Birth date.
2. Directory information may be disclosed in the absence of consent unless the student files a written notice, within three weeks of the first day in which the student is enrolled, informing UMUC not to disclose any or all of the categories. To prevent automatic disclosure of directory information, this notice must be filed annually within the time allotted above, with the appropriate custodian of the education records, as defined in this policy.

C. Additional Disclosures Without Prior Consent
Prior consent is not required for disclosure of education records or the personally identifiable information contained therein in the following circumstances:
1. The disclosure is to other school officials generally within the University System of Maryland (USM) or UMUC who have legitimate educational interests.
   a. “School officials” includes internal and external instructional or administrative personnel who are or may be in a position to use the information in furtherance of a legitimate educational objective, such as to provide student services. This includes, but is not limited to, faculty, staff members, and security personnel.
   b. “Legitimate educational interests” include interests directly related to the academic environment.
2. The disclosure is to officials of other schools in which a student seeks to enroll or is enrolled.
   Upon his or her request and at his or her expense, the student is provided with a copy of the records that have been transferred.
3. The disclosure is to authorized representatives of the comptroller general of the United States, the secretary of the U.S. Department of Education, and state or local educational authorities.
4. The disclosure is to authorized persons and organizations in connection with a student’s application for, or receipt of, financial aid—but only to the extent necessary for such purposes as determining eligibility, amount, conditions, and enforcement of terms and conditions.
5. The disclosure is to state and local officials to whom, according to effective state law adopted prior to November 19, 1974, such information is specifically required to be reported.
6. The disclosure is to organizations conducting educational studies for the purpose of developing, validating, or administering predictive tests, administering student aid programs, and improving instruction. The studies shall be conducted so as not to permit personal identification of students to outsiders, and the information is destroyed when it is no longer needed for those purposes.
7. The disclosure is to accrediting organizations for purposes necessary to carry out their functions.
8. The disclosure is to the parent of a student who is dependent for income tax purposes. (Note: UMUC may require documentation of dependent status, such as copies of income tax forms.)
9. The disclosure is to comply with a judicial order or lawfully issued subpoena. Unless expressly prohibited by the subpoena, UMUC will make a reasonable effort to notify the student or parent of the order or subpoena in advance of compliance in order to give them time to seek protective action.

10. The disclosure is in connection with a health or safety emergency.

11. The disclosure is to an alleged victim of any crime of violence, of the results of any disciplinary proceeding conducted by UMUC against the alleged perpetrator of that crime with respect to that crime.

12. The disclosure is to an alleged victim of any crime of violence of the results of any disciplinary proceeding conducted by UMUC against the alleged perpetrator of that crime with respect to that crime.

D. Record of Disclosures

UMUC maintains with the student’s education records a record of each request and each disclosure, except for:

1. Disclosures to the student himself or herself.
2. Disclosures made pursuant to the written consent of the student (the written consent itself suffices as a record).
3. Disclosures to USM instructional or administrative officials.
4. Disclosures of directory information. This record of disclosures may be inspected by the student, the official custodian of the records, and other officials of UMUC and governmental officials.

VI. Right to File Complaint

A student alleging that UMUC has not complied with the Family Educational Rights and Privacy Act (FERPA) may file a student grievance in accordance with UMUC’s Student Grievance Procedures (Policy 130.70) or submit a written complaint to

Family Policy Compliance Office
U.S. Department of Education
400 Maryland Avenue, SW
Washington, DC 20202-4605

Intellectual Property

(UMUC Policy 190.0)

The primary mission of universities is to create, preserve, and disseminate knowledge. When that knowledge takes the form of intellectual property, a university must establish a clear and explicit policy that will protect the interests of the creators and the university while ensuring that society benefits from the fair and full dissemination of that knowledge. More information about UMUC’s policy on intellectual property is available on the Web at www.umuc.edu/policy/research19000.shtml.
## Appendix A: Program-Career Map

### BUSINESS MANAGEMENT AND FINANCE

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• General manager  
• Operations manager | • MS in technology management                                              | 50   |
| Business Administrative Services | • General manager  
• Midlevel corporate manager in  
  – Finance  
  – Marketing  
  – Corporate planning  
• Consultant  
• Chief executive officer  
• Chief operations officer  
• Chief financial officer | • MS in management, interdisciplinary studies in management specialization  
• MBA (standard or Executive Program) | 43, 11, 54 |
| Community Relations       | • Board member or director  
• Executive positions, such as  
  – Executive director  
  – Executive vice president  
  – Chief executive officer  
• Professional staff, such as  
  – Policy analyst  
  – Government liaison  
  – Director of marketing and development  
  – Program director  
  – Membership director  
  – Technical expert  
• Social entrepreneur (someone who wishes to found her or her own nonprofit)  
• Volunteer (someone who provides skills, knowledge, and services to nonprofits or associations) | • MS in management, nonprofit and association management specialization  
• MBA (Executive Program) | 44, 54 |
| Finance and Accounting    | • Public accountant or auditor  
• Accounting manager  
• Internal control/forensics accounting specialist  
• Management accountant  
• Government accountant or auditor  
• Internal auditor  
• Financial, budget, or management analyst  
• Accounting or financial officer  
• Fraud examiner  
• Controller or treasurer  
• Financial manager  
• Capital investment analyst  
• Financial liaison with business units  
• Credit or cash manager  
• Financial consultant or advisor  
• Cost analyst or program analyst  
• Chief financial officer (CFO) or chief information officer (CIO)  
• CFO liaison with the CIO office  
• CIO liaison with CFO office  
• CIO or CFO liaison with the business units | • MS in accounting and financial management  
• MS in accounting and information technology  
• MS in financial management and information systems  
• MS in management  
  – accounting specialization  
  – financial management specialization  
• MBA (Executive Program) | 21, 23, 29, 42, 42, 54 |
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<td><strong>Human Resources</strong></td>
<td>• Human resources executive</td>
<td>• MS in management, human resource management specialization</td>
<td>43</td>
</tr>
<tr>
<td></td>
<td>• Human resources generalist</td>
<td>• MDE</td>
<td>13</td>
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<tr>
<td></td>
<td>• Employee relations manager</td>
<td>– distance education policy and management specialization</td>
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<tr>
<td></td>
<td>• Staffing director</td>
<td>– distance education teaching and training specialization</td>
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<tr>
<td></td>
<td>• Compensation manager</td>
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<tr>
<td></td>
<td>• Director of human resource training and development</td>
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<tr>
<td></td>
<td>• Organizational development and change consultant</td>
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<td></td>
<td>• Technical director</td>
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<tr>
<td></td>
<td>• Production manager</td>
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<tr>
<td></td>
<td>• Technical expert/advisor/consultant</td>
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<td></td>
<td>• Coordinator of online instruction</td>
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<td></td>
<td>• Online course support specialist</td>
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<td></td>
<td>• Online trainer</td>
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<td></td>
<td>• Online librarian/resource manager</td>
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<td></td>
<td>• Pedagogical expert</td>
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<td></td>
<td>• Online resource manager</td>
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<td></td>
<td>• Program evaluator/educational consultant</td>
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<td></td>
<td>• Director of distance learning</td>
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<tr>
<td></td>
<td>• Financial advisor/account manager (as part of e-learning projects)</td>
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<tr>
<td><strong>Information Systems</strong></td>
<td>• Systems or business analyst</td>
<td>• MDE</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>• Systems development manager</td>
<td>– distance education technology specialization</td>
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<td></td>
<td>• Information security (IS) project or program manager</td>
<td>– distance education teaching and training specialization</td>
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<tr>
<td></td>
<td>• IS consultant</td>
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<td></td>
<td>• Chief information officer</td>
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<td></td>
<td>• IS-aware general manager</td>
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<td></td>
<td>• Technical director</td>
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<td>• Technical expert/advisor/consultant</td>
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<td>• Coordinator of online instruction</td>
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<td></td>
<td>• Online course support specialist</td>
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<td></td>
<td>• Project/program director (e-learning arena)</td>
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<tr>
<td><strong>International Business</strong></td>
<td>• Midlevel manager in a global enterprise, corporation, government agency, or</td>
<td>• MIM</td>
<td>17</td>
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<tr>
<td></td>
<td>nonprofit organization in – International communications</td>
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<td></td>
<td>– Global trade operations</td>
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<td></td>
<td>• Senior-level manager in a global enterprise, corporation, government agency,</td>
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<td></td>
<td>or nonprofit organization</td>
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<tr>
<td></td>
<td>• Chief executive, operations, or financial officer in an international</td>
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<tr>
<td></td>
<td>corporation or domestic business with international partnerships</td>
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[www.umuc.edu/grad](http://www.umuc.edu/grad)
### BUSINESS MANAGEMENT AND FINANCE (continued)

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<th>ACADEMIC PROGRAMS</th>
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<tbody>
<tr>
<td>Logistics and Procurement</td>
<td>• Contract specialist</td>
<td>• MS in management, procurement and contract management specialization</td>
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</tr>
<tr>
<td></td>
<td>• Contract officer</td>
<td></td>
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<tr>
<td></td>
<td>• Contract manager/administrator</td>
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<td></td>
<td>• Procurement specialist</td>
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<td></td>
<td>• Procurement manager/administrator</td>
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<td></td>
<td>• Purchaser/buyer</td>
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<td></td>
<td>• Logistics specialist</td>
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<td></td>
<td>• Logistics analyst</td>
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<td></td>
<td>• Logistics manager/administrator</td>
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<tr>
<td>Marketing</td>
<td>• Marketing manager (business-to-business or business-to-consumer)</td>
<td>• MS in management, marketing specialization</td>
<td>43</td>
</tr>
<tr>
<td></td>
<td>• Internet marketing manager</td>
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<td></td>
<td>• Direct marketing manager</td>
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<td></td>
<td>• Product/brand manager</td>
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<td></td>
<td>• Manufacturer’s representative</td>
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<td></td>
<td>• Retail manager</td>
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<td></td>
<td>• Account executive (business or consumer products)</td>
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<td></td>
<td>• Market research analyst (entry-level)</td>
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<td></td>
<td>• Promotions manager</td>
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<tr>
<td>Security</td>
<td>• Facility security officers</td>
<td>• MS in information technology, information assurance specialization</td>
<td>35</td>
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<tr>
<td></td>
<td>• Military planners</td>
<td>• MS in management, homeland security specialization</td>
<td>42</td>
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<tr>
<td></td>
<td>• Federal, state, and local government emergency planners and policy makers</td>
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<tr>
<td></td>
<td>• Chief security officers</td>
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### CONSTRUCTION AND DEVELOPMENT

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<tbody>
<tr>
<td>Construction</td>
<td>• Project manager</td>
<td>• MS in technology management</td>
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<tr>
<td>Maintenance and Operations</td>
<td>• Cost estimator</td>
<td>• Project manager</td>
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<td></td>
<td>• MS in technology management</td>
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### CONSUMER SERVICES, HOSPITALITY, AND TOURISM

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<tbody>
<tr>
<td>Customer Service</td>
<td>• General/regional manager</td>
<td>• MS in management, interdisciplinary studies in management specialization</td>
<td>43</td>
</tr>
<tr>
<td>Logistics</td>
<td>• Logistics specialist</td>
<td>• MS in management, procurement and contract management specialization</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>• Logistics analyst</td>
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<td></td>
<td>• Logistics manager/administrator</td>
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<tr>
<td>Marketing and Communications/</td>
<td>• Marketing manager (business-to-business or business-to-consumer)</td>
<td>• MS in management, marketing specialization</td>
<td>43</td>
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<tr>
<td>Event Management</td>
<td>• Internet marketing manager</td>
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<td></td>
<td>• Direct marketing manager</td>
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<td>• Manufacturer’s representative</td>
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<td>• Retail manager</td>
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<td>• Account executive (business or consumer products)</td>
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<td>• Market research analyst (entry-level)</td>
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<td>• Promotions manager</td>
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<tr>
<td>Merchandising/Buying</td>
<td>• Purchaser/buyer</td>
<td>• MS in management, procurement and contract management specialization</td>
<td>44</td>
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</table>
### EDUCATION AND TRAINING

<table>
<thead>
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<tbody>
<tr>
<td><strong>Distance Education</strong></td>
<td>• Technical director &lt;br&gt; • Production manager &lt;br&gt; • Technical expert/advisor/consultant &lt;br&gt; • Coordinator of online instruction &lt;br&gt; • Online course support specialist &lt;br&gt; • Online teacher/tutor/trainer &lt;br&gt; • Pedagogical expert (online learning) &lt;br&gt; • Online librarian/resource manager &lt;br&gt; • Program evaluator/educational consultant &lt;br&gt; • Subject matter expert (for distance education) &lt;br&gt; • Director of distance learning &lt;br&gt; • Project/program manager/director &lt;br&gt; • Project management assistant &lt;br&gt; • Financial advisor/account manager &lt;br&gt; (in distance education environments) &lt;br&gt; • Distance learning librarian</td>
<td>• MDE &lt;br&gt; – distance education technology specialization &lt;br&gt; – distance education teaching and training specialization &lt;br&gt; – distance education policy and management specialization</td>
<td>13</td>
</tr>
<tr>
<td><strong>Pre-K–12 Education</strong>*</td>
<td>• Teacher in elementary or secondary education &lt;br&gt; • Tutor &lt;br&gt; • Teacher leader (within the school building responsible for technology integration) &lt;br&gt; • Staff developer (at the school district level) &lt;br&gt; • Technology integration specialist (for a school district) &lt;br&gt; • Technology integration specialist (for a state agency or education provider) &lt;br&gt; • Program or curriculum developer &lt;br&gt; • Developer of multimedia (for education or training) &lt;br&gt; • Online distance education teacher (for virtual K–12 schools)</td>
<td>• Alternative teacher certification &lt;br&gt; • Teacher education reading strand &lt;br&gt; • MEd in instructional technology</td>
<td>68</td>
</tr>
</tbody>
</table>

* State certification as a teacher, paraprofessional, or administrator may be a prerequisite for employment in Pre-K–12 school settings. Students should check with their state department of education. Note that the Master of Education (MEd) does not lead to initial teacher certification.

### ENVIRONMENTAL SYSTEMS

<table>
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<th>ACADEMIC PROGRAMS</th>
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<tbody>
<tr>
<td><strong>Management</strong></td>
<td>• Environmental project manager &lt;br&gt; • Environmental program manager &lt;br&gt; • Environmental program analyst &lt;br&gt; • Environmental specialist &lt;br&gt; • Environmental and waste manager &lt;br&gt; • Air quality specialist &lt;br&gt; • Land and water use planner &lt;br&gt; • Natural resource manager &lt;br&gt; • Natural resource specialist</td>
<td>• MS in environmental management</td>
<td>27</td>
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</table>
## HEALTH AND BIOSCIENCES CLUSTER

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<tr>
<th>PATHWAYS</th>
<th>CAREER OPTIONS</th>
<th>ACADEMIC PROGRAMS</th>
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</thead>
</table>
| **Applied Research** | • Bioinformatics analyst  
• Bioinformatics engineer  
• Statistical analyst  
• Emergency response coordinator  
• Research assistant/associate, domestic preparedness | • MS in biotechnology  
— bioinformatics specialization  
— biosecurity and biodefense specialization |
| **Basic Research** | • Bioinformatics analyst  
• Bioinformatics developer  
• Research scientist  
• Lab technician  
• Lab coordinator | • MS in biotechnology  
— bioinformatics specialization  
— biotechnology management specialization |
| **Health Administration Informatics** | • Consultants in health administration informatics  
• Vendors of health administration informatics products  
• Health administration informatics employees for health insurance companies  
• Health administration informatics employees in hospital, primary care, long term care or integrated health care delivery systems  
• Coordinator of online instruction (in health administration)  
• Online course support specialist (in health administration)  
• Online trainer and manager/supervisor (in health administration)  
• Program evaluator  
• Director of distance learning (in health administration) | • MS in health administration informatics  
• MDE  
— distance education teaching and training specialization  
— distance education technology specialization |
| **Informatics** | • Bioinformatics analyst  
• Bioinformatics engineer  
• Bioinformatics support specialist  
• Bioinformatics programmer | • MS in biotechnology, bioinformatics specialization |
| **Manufacturing** | • Product manager  
• Quality assurance supervisor | • MS in biotechnology, biotechnology management specialization |
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<th>PATHWAYS</th>
<th>CAREER OPTIONS</th>
<th>ACADEMIC PROGRAMS</th>
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</table>
| **Government and Public Administration** | • Contract specialist  
• Contract officer  
• Contract manager/administrator  
• Procurement specialist  
• Procurement manager/administrator  
• Purchaser/buyer  
• Logistics specialist  
• Logistics analyst  
• Logistics manager/administrator  
• Government accountant or auditor  
• Technical director  
• Technical expert/advisor/consultant  
• Program manager  
• Coordinator of online instruction  
• Online course support specialist  
• Online trainer  
• Manager of online instruction  
• Pedagogical expert  
• Online resource manager  
• Program evaluator/educational consultant  
• Director of distance learning  
• Financial advisor/account manager (as part of e-learning projects) | • **MS in management,**  
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– procurement and contract management specialization | 42 |
|  |  | • **MDE,**  
– distance education policy and management specialization  
– distance education teaching and training specialization  
– distance education technology | 44 |
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<tbody>
<tr>
<td>E-Business</td>
<td>• E-commerce manager&lt;br&gt;• E-commerce operations manager&lt;br&gt;• E-commerce consultant&lt;br&gt;• E-commerce product manager&lt;br&gt;• Technical director&lt;br&gt;• Program manager&lt;br&gt;• Coordinator of online instruction&lt;br&gt;• Online course support specialist&lt;br&gt;• Online trainer&lt;br&gt;• Manager of online instruction&lt;br&gt;• Pedagogical expert&lt;br&gt;• Online resource manager&lt;br&gt;• Financial advisor/account manager (as part of e-learning projects)</td>
<td>• MS in information technology&lt;br&gt;− e-business specialization&lt;br&gt;− project management specialization&lt;br&gt;• MDE&lt;br&gt;− distance education policy and management specialization&lt;br&gt;− distance education technology specialization</td>
<td>35</td>
</tr>
<tr>
<td>Homeland Security</td>
<td>• Chief operation officer&lt;br&gt;• Facility and plant manager&lt;br&gt;• Facility security officer&lt;br&gt;• Military planner&lt;br&gt;• Federal/state/local government emergency planners/policy maker&lt;br&gt;• Law enforcement, emergency, or medical policy maker, practitioner, or administrator</td>
<td>• MS in information technology&lt;br&gt;− homeland security specialization&lt;br&gt;− project management specialization</td>
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</tr>
<tr>
<td>Information Systems and Security</td>
<td>• Security analyst&lt;br&gt;• Chief security officer&lt;br&gt;• Security manager&lt;br&gt;• Security architect&lt;br&gt;• Security administrator&lt;br&gt;• Security officer&lt;br&gt;• Security professional&lt;br&gt;• Network administrator&lt;br&gt;• Network professional&lt;br&gt;• System administrator&lt;br&gt;• System professional</td>
<td>• MS in information technology&lt;br&gt;− information assurance specialization&lt;br&gt;− project management specialization</td>
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<tr>
<td>Information Systems Management</td>
<td>• Chief information officer</td>
<td>• MS in information technology</td>
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<td>Software Engineering/Development</td>
<td>• Software architect&lt;br&gt;• Network analyst&lt;br&gt;• Operating systems designer/engineer&lt;br&gt;• Information systems architect&lt;br&gt;• Software development team leader&lt;br&gt;• Software development department head&lt;br&gt;• Chief technical officer</td>
<td>• MS in information technology&lt;br&gt;− software engineering specialization&lt;br&gt;− project management specialization&lt;br&gt;− informatics specialization</td>
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</tr>
<tr>
<td>Software Operations</td>
<td>• Project manager&lt;br&gt;• Operations manager&lt;br&gt;• Operations systems analyst</td>
<td>• MS in information technology&lt;br&gt;− software engineering specialization&lt;br&gt;− project management specialization&lt;br&gt;− informatics specialization</td>
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</tr>
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<td>Software Operations—Database Management</td>
<td>• Database administrator&lt;br&gt;• Senior database administrator&lt;br&gt;• Database security expert</td>
<td>• MS in information technology&lt;br&gt;− database systems technology specialization&lt;br&gt;− project management specialization&lt;br&gt;− informatics specialization</td>
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<td>PATHWAYS</td>
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<tr>
<td>Systems</td>
<td>• Systems architect</td>
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<td></td>
<td>• Systems engineer</td>
<td>• project management specialization</td>
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<td></td>
<td>• Operations system engineer</td>
<td>• informatics specialization</td>
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<td></td>
<td>• Security analyst</td>
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<td>• Operations system program manager</td>
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<td>Telecommunications</td>
<td>• Telecommunications system developer</td>
<td>• MS in information technology</td>
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<td>Management</td>
<td>• Network security manager</td>
<td>• telecommunications management specialization</td>
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<tr>
<td></td>
<td>• Network manager (for local and wide area, wired and wireless systems)</td>
<td>• project management specialization</td>
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<td>• Network designer (for local and wide area, wired and wireless systems)</td>
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<td>• Information systems developer</td>
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<td>• Telecommunications system business manager</td>
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<td></td>
<td>• Telecommunications system operations manager</td>
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### MANUFACTURING, ENGINEERING, AND TECHNOLOGY

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<td>Commercialization of Technology</td>
<td>• Chief technology officer</td>
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<tr>
<td>Information Technology</td>
<td>• System engineer • Knowledge engineer • Product data manager</td>
<td>• MS in technology management</td>
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<td>Logistics and Inventory Control</td>
<td>• Logistics analyst • Production planner and scheduler • Inventory manager • Purchasing manager</td>
<td>• MS in technology management</td>
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<td>Manufacturing Process</td>
<td>• Product change coordinator</td>
<td>• MS in technology management</td>
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<td>Manufacturing Sales and Service</td>
<td>• Marketing manager • Sales manager • Customer sales manager • Sales and application manager</td>
<td>• MS in technology management</td>
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<td>Product Engineering</td>
<td>• Systems engineer</td>
<td>• MS in technology management</td>
<td>50</td>
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<tr>
<td>Production</td>
<td>• Systems engineer • Project manager • Program manager</td>
<td>• MS in technology management</td>
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<tr>
<td>Purchasing and Procurement</td>
<td>• Contract specialist • Contract officer • Contract manager/administrator • Procurement specialist • Procurement manager/administrator • Purchaser/buyer • Logistics specialist • Logistics analyst • Logistics manager/administrator</td>
<td>• MS in management, procurement and contract management specialization</td>
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<td>• E-learning specialist/consultant</td>
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<td>• Project/program manager (in e-learning related areas)</td>
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<td></td>
<td>• Pedagogical expert (online learning);</td>
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<td></td>
<td>• Coordinator of online instruction</td>
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<td>• Online librarian/resource manager</td>
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<td></td>
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<td></td>
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