ADAMS
UNIVERSITY

2002-2003 Course Catalog

Welcome to Adams University's World Wide Campus! Each of our distinctive educational programs is designed to enable you to reach your own individual academic goals.

When you enroll with Adams, you join students from around the globe who are also following their dreams. In today's competitive work environment, earning an advanced academic degree is the first step to a highly successful career. Don't be left behind. Give yourself the educational foundation and business insights that will open doors to your future. I am confident you will find our programs among the best available.

Dr. John Houston
Chancellor

Adams University Staff

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Adams University Profile

- Adams University is a private virtual university
- owned by an educational corporation of Roseau, Commonwealth of Dominica.
- provides students from around the world a quality formal education.
- provides an opportunity for students to study and learn at their own pace
- offers Associate, Bachelors, Masters and Doctorate degree study

Degree Program Goals

The goal of all Adams University degree programs is to offer students the opportunity to obtain a high quality education – one designed to develop a well-rounded individuals who possess the skills necessary for personal growth and professional advancement.

Memberships
- **Association for Online Academic Accreditation (AOAA)**
- **World Association of Education Administrators (WAEA)**
- **International Association of Foreign Student Advisors (IAFSA)**
- **International Management Association (IMA)**
- **Global Business Association (GBA)**
- **Marketing Research Database (MRD)**
- **International Library Association (ILA)**

Academic Calendar

Adams University operates on a semester system consisting of three semesters per year: Spring, Summer and Fall.

Semester Credit Hour System

Adams University's academic programs operate on a four-month semester system (three semesters per academic year). Course credit is assigned according to the number of in-class contact hours associated with the course. Courses earn one semester credit hour for each 15 hours of class time. Lecture and computer laboratory courses earn credit at the same rate.

Library Resources

All students are encouraged to use local library resources. Students are also encouraged to benefit from online library resources and information databases using the Internet. All online students are issued an Adams University student ID user name and password enabling access to Adams' online library research databases.

Books and Study Materials

Books and other study materials may be purchased through the University Store.

Enrollment and Registration

To apply for Adams University Degree programs complete the *Application for Admission* and send it together with the appropriate application fee.

Requirements for Admission
What's Required for Undergraduate Admission

Our general criteria for admission are;

- ✎ Graduation from a recognized high school or successful completion of the U.S. General Education Development (GED) exams with a total score of at least 225 and no score below 40 on any of the five test, and
- ✎ Submission of a completed and signed Application for Admission along with payment of the application fee, and
- ✎ The applicant must have celebrated their 18th birthday prior to submitting the application, and
- ✎ You must talk with and receive approval from a guidance counselor prior to admission, and
- ✎ You must submit an acceptable writing sample of not less than 20 pages in length nor more than 30 pages in length to demonstrate your writing abilities, and
- ✎ You must have access to a computer with a Pentium 2 processor at 266 Mhz or higher and you must have access to the Internet, and
- ✎ Before the beginning of the fist term of study we must have received all official transcripts from each previously attended academic institution.

Special Categories for Admission

If you are a graduate of an accredited college or university you automatically qualify for admission. If you are simply not sure whether you meet the admission requirements, please review the special categories below.

Former Student
If two or more years have passed since your last enrollment at Adams University, you must complete a new application; however, the fee is waived.

Requirements for Admission (continued)

Provisional Student

If you attend any college or university within the last two years and earned a cumulative grade-point average (GPA) lower than 2.0 (on a 4.0 scale), you will be admitted with the Chancellor's approval as a Provisional Student. You will be limited to a maximum of 9 semester credit hours each semester until you have successfully completed 15 graded semester credit hours with a cumulative GPA of 2.0 or higher.

Graduate Student

If you are a graduate student at another institution, you must complete the term you are in order to transfer to Adams University. All outstanding fees must be acknowledged as paid by the former institution before you will be allowed to transfer into any of our programs.

Tuition and Payment Options

Those students seeking admission into any program pay a onetime, nonrefundable application fee. This fee is paid at the time the application is submitted. Our payment options include;

- **Full Payment Option:** Pay the entire tuition total at registration. This option allows a 10% discount.
- **60% Payment Option:** Pay 60% of the tuition total at registration and the remaining 40% in 3 payments by the end of the semester. You will receive a 5% discount overall on your final payment. However, if you fail to make a scheduled payment you will be denied access to any and all of your classes and no refund will be granted.
- **1/3 Payment Option:** Pay 1/3 of the semester's tuition at registration and 2 payments of 1/3 spaced 30 days apart. If you use this option you have a 14 day leeway from the date your payment is due. After the leeway, if you fail to make your payment you will be denied access to any and all of your classes and no refund will be granted.

Tuition and Payment Options (continued)

Approved methods of payment include cash, money orders, credit card (Master Card, Visa or American Express card) and wire transfer. Students may also pay by personal check drawn on a financial institution. When making payment by a personal check the funds must transfer before the student will be allowed to begin classes. Regardless of the mode of payment, the total tuition for the student's program **must be paid before course grades, degrees, diplomas, or transcripts will be issued.**

Tuition Cost

The cost of tuition will depend upon the number of credit hours taken. Each credit hour will cost $125.00 in US Dollars. All tuition must be paid by the end of each semester. Students having unpaid tuition balances at semester's end will be denied the opportunity to continue their education until the unpaid portion of their tuition has been paid in full.

Academic Policies

Academic Honesty

All students are expected to adhere to the highest standards of academic ethics and honesty. This means that all course work submitted must be completed by and represent the unique efforts of that student. Course work completed with the assistance of others must be identified as such and the nature of the help provided clearly described. Team efforts, help from others or external guidance is not discouraged, however, the student must acknowledge and describe the extent to which any work does not solely represent his or her individual effort. All papers, projects and presentations which draw upon information sources of any kind must contain complete reference citations and full bibliographies listing all sources used.

Academic Advising

Every student will have one or more faculty advisors available for guidance, assistance and support during the course of study. The advisor may change depending upon the course or the student's emphasis. Students are encouraged to communicate with their advisors using: e-mail, telephone, fax and standard post at any time assistance or support is desired. The Academic Programs Manager is the first person to contact for assistance. The appropriate faculty advisor will be assigned by the Academic Programs Manager to meet the student's requirements.

Academic Policies (continued)

Transfer of Credit from Other Schools

Academic credits earned at recognized institutions with a grade of "C" or better may be transferred toward our degree programs. The Admissions Office will evaluate applicant transcripts and academic records to determine the amount of transfer-credit accepted. Transfer credit may be given for academic course work completed as well as for tangible evidence of significant professional accomplishment such as technical papers published, major projects completed, or other noteworthy professional achievements. Regardless of the amount of transfer credit accepted, all students must complete at least one year through Adams University to be eligible for award of an Adams University degree.

Maximum Degree Program Duration

The maximum time to complete any degree program is 1.5 times the normal length of the program unless mitigating circumstances such as illness exist. The normal length of each program is established during the first two semesters based upon the average number of courses completed during that time.

Grading System

All course work is graded according to a unified grading system as shown in the following chart.

Grade Verbal

Grade	Points	% Points	Description
A	4	90-100%	Excellent
B	3	80-89%	Very Good
C	2	70-79%	Satisfactory
D	1	60-69%	Below Average
F	0	Below 60%	Fail

The minimum Grade Point Average (GPA) for remaining in Adams' degree programs:

Undergraduate Programs 2.0 (a C average)

Graduate Programs: 3.0 (a B average)

Non-evaluative Grades: these are not used in calculation of Grade Point Average

AU – Audit
CR – Credit Granted
P – Passed
I – Incomplete
S & U – Satisfactory & Unsatisfactory
W **–** Withdrawal

AU Grade: Students may elect to audit a course and receive no credit for the experience. This election must be made when enrolling in the class. Tuition is required.

CR Grade: The **CR** notation is applied to transfer credits.

P Grade: The **P** indicates that the student has received credit for a course through evaluation. No academic credit is awarded and no GPA is earned.

I Grade: An **I** grade is awarded for incomplete course work at the discretion of the instructor. A student has up to one year to complete the work required to replace an **I** grade with a letter grade. After one year the **I** grade becomes permanent and the course must be retaken to receive an academic letter grade.

S & U Grades: These grades (Satisfactory and Unsatisfactory) are used for certificate and diploma courses where academic credit is not desired.

W Grade: This grade indicates the student withdrew from a particular course.

General Education Requirements

All candidates for Adams University's Bachelor degrees must earn a minimum of 36 semester credit hours of college-level general education as a part of the total bachelor degree requirement of 120 semester credit hours. Those general education credits must be earned from four different academic areas shown in the following listing.

A. Communications (12 s.h.)

• ENGL 101 or ENGL 101X (3 s.h.)

Must be completed within first 15 s.h. Placement test required (The Writing Sample submitted during admission)

• Another writing course (3 s.h.)

All 3-credit COMM courses (except COMM 300, 380, 400, 486, and 493) and ENGL 278F, 291, 294, 303, 391, 391X, 396*, 480, 482, 483, 485, and 493 apply.

• A third course in writing or a course in speech communication (3 s.h.)

All COMM and SPCH courses (except 486A and 486B) and ENGL 278F, 281, 281X, 291, 294, 303, 384, 391, 391X, 396*, 480, 482, 483, 485, 493, and 498 apply.

• An upper-level intensive writing course (3 s.h.)

ENGL 303, 391, 391X, and 396*; COMM 390, 393, 393X, 394, and 394X; and LGST 401 apply. May not be earned through credit by examination.

No more than 6 semester hours of writing credit may be earned through credit by examination.

B. Arts and Humanities (6 s.h.)

One course each in two of the following disciplines: ARTH, ARTT, HIST, HUMN, MUSC, PHIL, THET, dance, literature, or foreign language

C. Behavioral and Social Sciences (6 s.h.)

One course each in two of the following disciplines: ANTH, BEHS, CCJS, ECON, GEOG, GERO (except GERO 341, 342, 351, and 353), GVPT, PSYC, or SOCY

Not all CCJS apply; eligible courses are CCJS 105, 330, 350, 360, 432, 451, 452, 453, 454, and 461.

D. Biological and Physical Sciences (7 s.h.)

• A science lecture course (3 s.h.) with related laboratory course (1 s.h.) or a science course combining lecture and laboratory (4 s.h.)

• Any other science course (3 s.h.)

Courses from the following disciplines satisfy both requirements: ASTR, BIOL, BSCI, CHEM, GEOL, NSCI, PHYS, botany, entomology, general science, and zoology.

General Education Requirements (continued)

E. Mathematics (3 s.h.)

MATH 105, MATH 107, or a course at or above the level of college algebra
Must be completed within first 15 s.h. Placement test required.
Note: MATH 107 or any higher-level mathematics course is required for majors in all computing areas and most business-related areas.
Students should refer to the specific major for requirements or recommendations.

F. Interdisciplinary or Emerging Issues (7 s.h.)

• *For all students:* One course (LIBS 150) in information literacy and research methods (3 s.h.)

• *For computing majors:* One course satisfying the international perspective requirement and one course satisfying the civic responsibility requirement (6 s.h.)
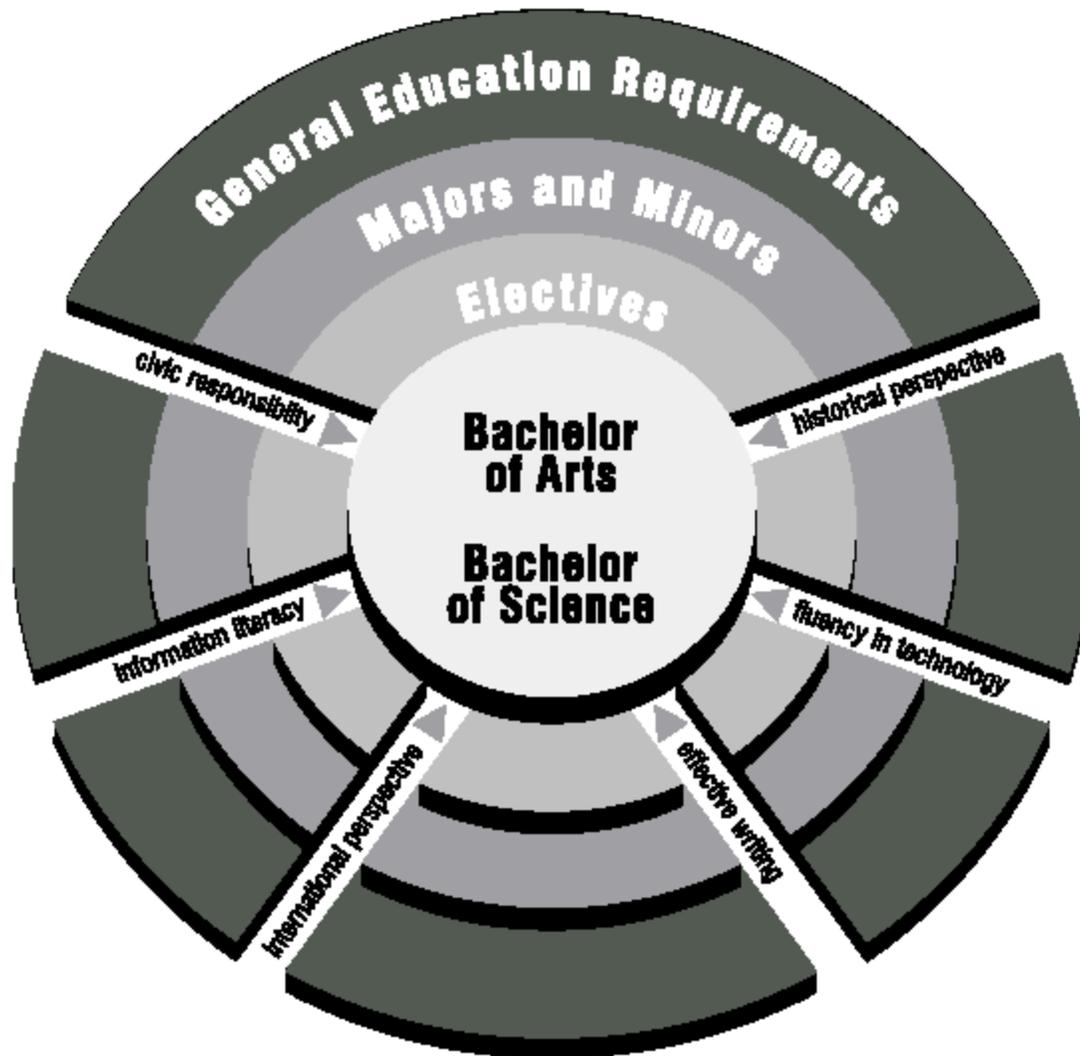
• *For noncomputing majors:* A total of 6 s.h. in computing courses, including

- An introductory course or courses (totaling 3 s.h.) chosen from IFSM 201, CMST 103, or three 1-credit CMST courses (including CMST 100A and two other 1-credit courses chosen from CMST 100B, 100F, and 100G)

- An additional 3 s.h. computing course appropriate to the academic major

Students should refer to the specific major for requirements or recommendations. Unless otherwise specified, courses in CMIS, CMIT, CMSC, CMST, and IFSM; LGST 360 and 363A; BMGT 301; and ACCT 326 apply. *Note:* IFSM 300 or ACCT 326 is required for business-related majors.

Building the Degree

General Education Requirements

Majors and Minors

Electives

civic responsibility

historical perspective

Bachelor
of Arts

Bachelor
of Science

information literacy

fluency in technology

international perspective

effective writing

MAJOR, MINOR, AND ELECTIVE REQUIREMENTS
A. Academic Major (30–38 s.h.)
The number of semester hours required to complete an academic major varies according to academic program. At least half the semester hours earned within the major must be upper-level credit and must be earned through ADAMS. No grade may be lower than C. Specific coursework is prescribed for each major and is described in the following section.

Students may receive a dual major on completion of all requirements for both majors, including the required minimum number of semester hours for each major.

B. Academic Minor (15–19 s.h.)
Students are strongly encouraged to select a minor. Completion of an academic minor is optional except for accounting majors. Students may not take a major and minor in the same area. The number of semester hours required to complete an academic minor varies according to academic program. At least half the semester hours earned within the minor must be earned at Adams University. No grade may be lower than C. Specific coursework is prescribed for each minor and is described in the following section.

C. Electives (15–49 s.h.)
Electives may be taken in any academic discipline and must include at least 9 semester hours of upper-level coursework.

No more than 21 semester hours may consist of vocational or technical credit; such credit is applicable only toward the BS and not toward the BA.

General Course Descriptions
The following entries describe courses offered through Adams University. Requirements pertain only to degrees conferred at Adams. To use these courses toward degrees offered by other institutions, students should refer to the catalogs of those institutions for restrictions that may apply. In transferring to Adams — particularly from a community college—students should be careful not to enroll in courses that duplicate their previous studies.

AASP 201 Introduction to African American Studies (3)
(Fulfills the historical perspective or civic responsibility requirement.) An interdisciplinary study of significant aspects of African American history and culture, emphasizing the development of African American communities from the Middle Passage to the present. Topics include definitions of African American identity, influences and achievements within American culture, and issues confronting African Americans. Students may receive credit for only one of the following courses: AASP 100 or AASP 201.

ACCT 220 Principles of Accounting I (3)

An introduction to the basic theory and techniques of contemporary financial accounting. Topics include the accounting cycle and the preparation of financial statements for single-owner business organizations that operate as service companies or merchandisers. Students may receive credit for only one of the following courses: ACCT 220 or BMGT 220. the following courses: ACCT 311 or BMGT 311.

ACCT 221 Principles of Accounting II (3)

Prerequisite: ACCT 220. Continuation of the study of financial accounting (emphasizing accounting for liabilities, equity, and corporate forms of ownership), followed by an introduction to managerial accounting. Topics include responsibility accounting, budgets, cost control, and standard costing procedures and variances. Emphasis is on management reporting. Students may receive credit for only one of the following courses: ACCT 221, BMGT 221, MGMT 301, or MGST 301.

ACCT 301 Accounting for Non-accounting Managers (3)

Accounting for Managers. May not be applied toward a major or minor in accounting.) A survey of principles of accounting relevant in making managerial decisions on the basis of accounting information. Topics include internal controls, financial planning and reporting, analysis of financial statements, and elements of managerial cost accounting and budgeting. Students may receive credit for only one of the following courses: ACCT 221, ACCT 301, BMGT 221, MGMT 301, or MGST 301.

ACCT 310 Intermediate Accounting I (3)

(Students should be cautious about enrolling in ACCT 310 or ACCT 311. These are professional courses requiring intensive study and analysis and are not to be undertaken casually. Students who have not taken ACCT 221 within the last two years may have difficulty.) Prerequisites: BMGT 110 (or at least two years of business or management experience) and ACCT 221,

ACCT 311 Intermediate Accounting II (3)

(A continuation of ACCT 310. Students should be cautious about enrolling in ACCT 310 or ACCT 311. These are professional courses requiring intensive study and analysis and are not to be undertaken casually. Students who have not taken ACCT 310 within the last two years may have difficulty.) Prerequisite: ACCT 310 or equivalent. A comprehensive analysis of financial accounting topics, including preparation of financial statements and external reports. Students may receive credit for only one of financial accounting. Topics include the accounting cycle and the preparation of financial statements for single-owner business organizations that operate as service companies or merchandisers. Students may receive credit for only one of the following courses: ACCT 311 or BMGT 311.

ACCT 321 Cost Accounting (3)

Prerequisites: BMGT 110 (or at least two years of business or management experience) and ACCT 221, or equivalent. A study of the basic concepts of determining, setting, and analyzing costs for purposes of managerial planning and control. Emphasis is on the role of the accountant in the management of organizations and in the analysis of cost behavior, standard costing, budgeting, responsibility accounting, and costs that are relevant for making decisions. Various techniques are used to study cost and managerial accounting concepts; these may include the use of problem sets, case studies, computer applications, and other materials. Students may receive credit for only one of the following courses: ACCT 321 or BMGT 321.

ACCT 323 Taxation of Individuals (3)

Prerequisite: ACCT 220 or equivalent. An introduction to federal taxation of the income of individuals. Tax laws are examined by means of illustrative examples and problems. Computer applications may be used to analyze specific examples. Students may receive credit for only one of the following courses: ACCT 323 or BMGT 323.

ACCT 326 Accounting Information Systems (3)

Prerequisites: ACCT 321 and a course in information systems management, or equivalent. A study of the control aspects of accounting systems. Topics include setting standards; defining and imposing administrative, operational, and security controls; and judging cost-effectiveness of systems. Various techniques are used to study accounting information-systems concepts; these may include the use of problem sets, case studies, computer applications, and other materials. Students may receive credit for only one of the following courses: ACCT 326, BMGT 320, or BMGT 326.

ACCT 328 Accounting Software (3)

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

ACCT 410

Accounting for Government and Not-for-Profit Organizations (3)

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

ACCT 411 Ethics and Professionalism in Accounting (3)

(Fulfills the civic responsibility requirement.) Prerequisite: ACCT 311 or equivalent. Analysis and discussion of issues relating to ethics and professionalism in accounting. The AICPA Code of Professional Conduct and the reasoning, philosophy, and application of that code are examined. Students may receive credit for only one of the following courses: ACCT 411 or BMGT 411.

ACCT 417 Taxation of Corporations and Other Entities (3)

Prerequisites: ACCT 311 and 323, or equivalent. Examination of the federal taxation of corporations, partnerships, fiduciaries, and gifts, with information on the tools and techniques of tax research for compliance and planning. Various techniques are used to study tax concepts; these may include the use of problem sets, case studies, computer applications, and other materials. Students may receive credit for only one of the following courses: ACCT 417 or BMGT 417.

ACCT 422 Auditing Theory and Practice (3)

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

ACCT 424 Advanced Accounting (3)

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

ACCT 425 International Accounting (3)

Fulfills the international perspective requirement. Prerequisite: ACCT 311. A study of accounting in a multinational context. Emphasis is on evolving international accounting and reporting standards, problems of foreign exchange and taxation, inter-company transfer pricing, and emerging issues in international accounting. Students may receive credit for only one of the following courses: ACCT 425 or ACCT 498A.

ACCT 426 Advanced Cost Accounting (3)

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

ACCT 427 Advanced Auditing (3)

Prerequisite: ACCT 422 or equivalent. An examination and a thorough study of special auditing topics. Statistical sampling, information systems auditing, attestation standards, assurance services, and SEC accounting are covered. Various techniques are used to study auditing theory and practice; these may include the use of problem sets, case studies, computer applications, and other materials. Students may receive credit for only one of the following courses: ACCT 427 or BMGT 427.

ACCT 436 Internal Auditing (3)

Prerequisite: ACCT 311 or equivalent. An introduction to internal auditing, its rapid growth, and its role in the modern corporation. Focus is on internal auditing standards, scope, responsibilities, ethics, controls, techniques, and reporting practices. Consideration is given to the material included in the Certified Internal Auditor examination. Various techniques are used to study internal auditing theory and practice; these may include the use of problem sets, case studies, computer applications, and other materials. Students may receive credit for only one of the following courses: ACCT 436, ACCT 498E, or BMGT 498E.

ACCT 486A Internship in Accounting Through Co-op (3)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in accounting. At least 12 hours per week must be devoted to new tasks for a total of 180 hours during the Co-op session; four new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to accounting and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

ACCT 486B Internship in Accounting Through Co-op (6)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in accounting. At least 20 hours per week must be devoted to new tasks for a total of 300 hours during the Co-op session; five to eight new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to accounting and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

ACCT 495 Contemporary Issues in Accounting Practice (3)

Prerequisites: ACCT 311, ACCT 321, ACCT 422, and BMGT 364. An examination of accounting for innovative and emerging business transactions and financing. Previously acquired knowledge is drawn on to aid in thinking critically, analyzing information, and proposing solutions to complex accounting and financial issues. Web accounting and business technology, accounting theory, and management techniques are used to research and analyze developing issues in the work-place. Topics include e-commerce, financial derivatives, balanced scorecards, and the changing nature of financial reporting and risk management. Students may receive credit for only one of the following courses: ACCT 495 or ACCT 498C.

AMST 201 Introduction to American Studies (3)

(Fulfills the historical perspective or civic responsibility requirement.) An exploration of the formation and evolution of a distinctly American identity. Topics include the concept of national citizenship, and efforts to broaden or narrow the definitions of who is and what makes a citizen of the United States.

ANTH 101 Introduction to Anthropology: Archaeology and Physical Anthropology (3)

A survey of general patterns in the development of human culture, addressing the biological and morphological aspects of humans viewed in their cultural setting. Students who complete both ANTH 101 and 102 may not receive credit for ANTH 340, BEHS 340, or BEHS 341.

ANTH 102 Introduction to Anthropology: Cultural Anthropology and Linguistics (3)

(Fulfills the civic responsibility or international perspective requirement.) A survey of social and cultural principles inherent in ethnographic descriptions, coupled with the study of language in the context of anthropology. Students who complete both ANTH 101 and 102 may not receive credit for ANTH 340, BEHS 340, or BEHS 341.

ANTH 241 Introduction to Archaeology (3)

An exploration of past human societies and cultures through archaeology, from the emergence of modern humans to the more recent historical past.

ANTH 298 Special Topics in Anthropology (1–3)

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

ANTH 340 Outlooks in Anthropology (6)

(Fulfills the civic responsibility or international perspective requirement. May be applied toward a specialization in behavioral and social sciences.) An interdisciplinary exploration of physical and cultural anthropology, linguistics, and archaeology. Discussion covers the evolution of human variation and cultures as adaptive systems. Theory and contemporary applications are examined. Students who have completed ANTH 101 and 102 may not receive credit for ANTH 340. Students may also receive credit for only one of the following courses: ANTH 340, BEHS 340, or BEHS 341.

ANTH 398 Intermediate Special Topics in Anthropology (1–3)

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

ANTH 398B Medicine, Health, and Culture (3)

(Fulfills the international perspective requirement.) An examination of worldwide variations in medical practices and beliefs about health. Medical treatment and health care in the contemporary United States are also considered.

ANTH 398I Death and Dying: Cross-Cultural Perspectives (3)

An introduction to the anthropological study of death and dying, both in America and in other parts of the world. Theories of ritual and social praxis are examined as explanations of contemporary social behavior. The interdisciplinary science of thanatology and the counseling disciplines are also introduced.

ANTH 401 Cultural Anthropology: Principles and Processes (3)

Prerequisite: ANTH 101, ANTH 102, or equivalent. An examination of the nature of human culture and its processes, both historical and functional. The approach is topical and theoretical rather than descriptive.

ANTH 402 Cultural Anthropology: World Ethnography (3)

Prerequisite: ANTH 101, ANTH 102, or equivalent. A descriptive survey of the culture of various areas of the world through an examination of representative societies.

ANTH 414 Ethnology of Africa (3)

(Fulfills the historical or international perspective requirement.) Prerequisites: ANTH 101 and 102. A study of the native peoples and cultures of Africa.

ANTH 417 Peoples and Cultures of the Far East (3)

(Fulfills the civic responsibility or international perspective requirement.) Prerequisite: An introductory course in the social sciences or permission of the faculty member. A survey of the major sociopolitical systems of China, Korea, and Japan. Major anthropological questions are discussed.

ANTH 486A Internship in Anthropology Through Co-op (3)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in anthropology. At least 12 hours per week must be devoted to new tasks for a total of 180 hours during the Co-op session; four new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to anthropology and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

ANTH 486B Internship in Anthropology Through Co-op (6)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in anthropology. At least 20 hours per week must be devoted to new tasks for a total of 300 hours during the Co-op session; five to eight new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to anthropology and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

ARTT 100 Two-Dimensional Art Fundamentals (3)

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

ARTT 110 Elements of Drawing I (3)

An introduction to various media and related techniques. Problems for study are based on the figure, still life, and nature.

ARTT 150 Introduction to Art Theory (3)

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

ARTT 200 Elements of Three-Dimensional Form and Space (3)

(A continuation of ARTT 100.) Prerequisite: ARTT 100 or ARTT 110. Further study of pictorial space, focusing on problems that are more individually structured in terms of form, composition, and meaning.

ARTT 210 Elements of Drawing II (3)

Prerequisite: ARTT 100 or ARTT 110. Drawing taught with an emphasis on understanding organic form as related to study of the human figure and pictorial composition.

ARTT 220 Color in Composition (3)

Development of a student's work on an intermediate level. The principles of color in composition and pictorial construction are covered. Students may receive credit for only one of the following courses: ARTT 208C or ARTT 220.

ARTT 250 Elements of Commercial Design (3)

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

ARTT 320 Elements of Painting (3)

Prerequisite: ARTT 110. Practice in the basic tools and vocabulary of painting. Oil and/or water-based paints are used.

ARTT 344 Elements of Printmaking: Lithography (3)

Prerequisite: ARTT 100, ARTT 110, or permission of faculty member. Presentation of basic techniques and processes related to drawing and preparing images, and printing them on lithographic stones or plates.

ARTT 350 Elements of Illustration (3)

An introduction to a variety of media and techniques used in illustration.

ARTT 353 Elements of Photography (3)

Prerequisite: ARTT 100, ARTT 110, or permission of faculty member. An introduction to black and white photography. Topics include basic technical and aesthetic vocabulary, camera mechanics, and dark-room techniques. Photographic message and meaning in both fine art and design concept are discussed.

ARTT 354 Elements of Computer Graphics (3)

Prerequisites: One lower-level course in ARTT (or equivalent experience in graphic design) and experience in art fundamentals, Microsoft Office applications, and Windows. An introduction to computer graphics programs and basic concepts in electronic design. Focus is on creating artwork in various formats, including print and the Web. Projects require six hours of computer work per week, some of which must be completed independently.

ARTT 418 Drawing (3)

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

ARTT 428 Painting (3)

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

ARTT 458 Graphic Design and Illustration (3)

An introduction to the basic elements of design. Projects focus on problems central to the commercial arts. Basic skills with a variety of media and techniques are developed.

ARTT 468 Seminar: Interrelationship Between Art and Art Theory (3)

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

ARTT 470 Watercolor (3)

An opportunity for further development of painting in watercolors at beginning or advanced levels. May be repeated to a maximum of 6 combined credits in ARTT 470 and ARTT 489B.

ARTT 479 Advanced Computer Graphics (3)

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

ARTT 486A Internship in Art Through Co-op (3)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in art. At least 12 hours per week must be devoted to new tasks for a total of 180 hours during the Co-op session; four new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to art and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

ARTT 486B Internship in Art Through Co-op (6)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in art. At least 20 hours per week must be devoted to new tasks for a total of 300 hours during the Co-op session; five to eight new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to art and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

ARTT 489 Special Problems in Studio Art (3)

May be repeated to a maximum of 6 credits.

ARTT 489E Introduction to Montage (1)

An intensive, hands-on workshop exploring the many possibilities for using photocopies or other printed materials in making a composite or montage type of collage. Step-by-step procedures for making pictures are demonstrated. Some supplies and photocopies of research material in various subjects or themes are available.

ARTT 489F Drawing on Both Sides of the Brain: Eye/Hand Coordination (1)

An intensive drawing workshop focusing on the interrelationship between the left and right sides of the brain and between hand and eye. A variety of drawing approaches are used to provide insight into the difficulties encountered at all levels of experience, thereby freeing individual potential. Studio work is supplemented by demonstrations, visual examples, and use of live model and still-life elements. Aspects of works by Edwards, Nicholaides, and Bridgeman are examined.

ARTT 498 Directed Studies in Art (2–3)

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

ARTH 335 17th-Century Art in the Netherlands (3)

Fulfills the historical or international perspective requirement. An exploration of painting, from the Dutch Golden Age—the age of Rembrandt, Vermeer, Hals, Steen, and Leyster. History painting, still life, landscape, portraiture, and scenes of everyday life are studied. Issues of collecting art are also discussed. Students may receive credit for only one of the following courses: ARTH 335 or ARTH 435.

ARTH 361 American Art Since 1876 (3)

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

ARTH 370 History of World Art I (3)

(Fulfills the historical or international perspective requirement.) A survey of the development of world visual art in its various forms, examining and comparing the expression of cultural and aesthetic values in different parts of the world, from prehistory to 1400, the European Age of Exploration when world cultures came into contact.

ARTH 380 Masterpieces of Painting (3)

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

ARTH 381 Masterpieces of Sculpture (3)

(Fulfills the historical or international perspective requirement.) Analysis of selected sculptural masterworks, intended to reveal the creative process, the personality of the artist, and the cultural context. Students may receive credit for only one of the following courses: ARTH 330 or ARTH 381.

ARTH 382 Masterpieces of Architecture (3)

Fulfills the historical or international perspective requirement. Analysis of selected masterworks of architecture, intended to reveal the creative process, personality of the artist, and the cultural context. Students may receive credit for only one of the following courses: ARTH 340 or ARTH 382.

ARTH 400 Egyptian Art and Archaeology (3)

Fulfills the historical or international perspective requirement. A study of sites and monuments of painting, sculpture, and the minor arts of ancient Egypt from the earliest times through the Roman conquest. Emphasis is on the Pharaonic period. Students may receive credit for only one of the following courses: ARTH 400 or ARTH 404.

ARTH 455 20th-Century Art to 1945 (3)

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

ARTH 456 20th-Century Art from 1945 (3)

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

ARTH 486A Internship in Art History Through Co-op (3)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in art history. At least 12 hours per week must be devoted to new tasks for a total of 180 hours during the Co-op session; four new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to art history and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

ARTH 486B Internship in Art History Through Co-op (6)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in art history. At least 20 hours per week must be devoted to new tasks for a total of 300 hours during the Co-op session; five to eight new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to art history and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

ARTH 488A Late Modern: Visual Arts Since 1945 (3)

(Fulfills the historical or international perspective requirement.) An examination of various art forms that emerged between 1945 and 1980. Works from the Impressionist and Post-Impressionist movements (including those of Monet, Cézanne, and Van Gogh) are discussed as laying the groundwork for Cubism and Expressionism in the 20th century. The relationships between Surrealism and Abstract Expressionism, Cubism and Assemblage, Pop Art and Dada, Bauhaus Experiments, and Op and Kinetic art are observed. Recent artists studied include Rauschenberg, Johns, Oldenburg, Arman, Rothko, Pollock, Warhol, Tinguely, and Hanson. Assignments include advanced reading and research. Students may receive credit for only one of the following courses: ARTH 199A or ARTH 488A.

ARTH 488D Art of China: The World Collection (1)

A gallery study tour of the worlds Art of China collection, which includes scroll paintings, ceramics, and sculpture, dating from the 16th to 20th centuries.

ARTH 489 Advanced Special Topics in Art History (3)

Advanced study of selected topics in art history. Assignments include advanced reading and research. Students may receive credit for a given topic in either ARTH 199 or ARTH 489 only once.

ARTH 489B History of Graphic Arts (3)

(Fulfills the historical or international perspective requirement.) A historical and technical survey of fine prints, from the 15th through the 20th century, primarily in Western Europe and America. Procedures used by the old masters and contemporary printmaking work-shops are studied with emphasis on relief, intaglio, planographic, and screen printing techniques. Approaches for buying and collecting fine prints are explored.

ARTH 489Y Impressionism and Neo-Impressionism (3)

A study of the major trends in 19th-century painting, especially Impressionism, Neo-Impressionism, and Post-Impressionism. Focus is on the contributions of Degas, Manet, Renoir, Monet, Cézanne, Seurat, Van Gogh, and Toulouse Lautrec. Assignments include advanced reading and research.

ARTH 490 Chinese Painting (3)

(Fulfills the historical or international perspective requirement.) A historical survey of Chinese painting from the 2nd century B.C. to the present. Cultural, stylistic, and theoretical aspects are analyzed.

ASTD 150 Introduction to Asian Studies I (3)

(The first course in the two-course sequence ASTD 150–160. Fulfills the civic responsibility or international perspective requirement and the general education requirements in the arts and humanities or the social sciences.) An interdisciplinary examination of the classical Asian tradition, encompassing a general survey of the region.

ASTD 160 Introduction to Asian Studies II (3)

(The second course in the two-course sequence ASTD 150–160. Fulfills the civic responsibility or international perspective requirement and the general education requirements in the arts and humanities or the social sciences.) Recommended: ASTD 150. An interdisciplinary examination of the modern period in Asian history, beginning approximately with the 17th century.

ASTD 198 Special Topics in Asian Studies (3)

An investigation of a special topic, problem, or issue of particular relevance to countries or peoples of the Pacific Rim or Indian Ocean. Typical investigations include historical or contemporary subjects focusing on cultural, economic, military, or political issues.

ASTD 398 Advanced Special Topics in Asian Studies (3)

An investigation of a special topic, problem, or issue of particular relevance to countries or peoples of the Pacific Rim or Indian Ocean. Typical investigations include historical or contemporary subjects focusing on cultural, economic, military, or political issues. Assignments include advanced reading and research.

ASTD 485 Great Issues in Asian Studies (3)

Prerequisite: 9 credits in Asian studies or Asian studies–related coursework. A comparative study of the broad issue of modernization in Asian nations. Previous study about Asia is integrated and complemented.

ASTR 100 Introduction to Astronomy (3)

(Not open to students who have taken or are taking any astronomy course numbered 250 or higher. For students not majoring or minoring in a science.) Prerequisite: MATH 012. A discussion of the major areas of astronomy. Topics include the solar system, stars and stellar evolution, and galaxies. Students may receive credit for only one of the following courses: ASTR 100, ASTR 101, ASTR 120, or GNSC 125.

ASTR 399 Independent Study in Astronomy (1–6)

Prerequisite: 6 credits in ASTR courses and agreement of faculty member to act as supervisor. Directed independent study of topics of special interest not covered by regularly scheduled courses in astronomy. May be repeated to a maximum of 6 credits when topics differ.

ASTR 486A Internship in Astronomy Through Co-op (3)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in astronomy. At least 12 hours per week must be devoted to new tasks for a total of 180 hours during the Co-op session; four new tasks must be delineated in the Learning Proposal; and the course require ments must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to astronomy and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

ASTR 486B Internship in Astronomy Through Co-op (6)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in astronomy. At least 20 hours per week must be devoted to new tasks for a total of 300 hours during the Co-op session; five to eight new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to astronomy and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

BEHS 201 Introduction to Behavioral and Social Sciences (6)

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

BEHS 336 The Middle East: An Interdisciplinary Perspective (6)

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

BEHS 343 Parenting Today (3)

An overview of critical issues of parenthood in the United States today. Topics include characteristics of effective parenting styles and capable parents, the role of nontraditional parenting techniques, and the social forces that cause changes in parent/child relationships and give rise to varying styles of parenting as developed in the United States. Some cross-cultural comparisons are included.

BEHS 361 Global Environmental Change (6)

An in-depth examination of environmental changes that many believe are caused by human adaptations to Earth's natural resources and the possible effects on both the global biosphere and the human condition. Scientific and social issues are explored through various questions: Is global warming really happening? Will sea levels rise? What are the consequences of massive deforestation? What can be done when there is so much scientific uncertainty and global social diversity? The concept of sustainability, as it applies to human interactions with the environment, is emphasized. Students may receive credit for only one of the following courses: BEHS 361, GNSC 361, HUMN 360, or NSCI 361.

BEHS 364 Alcohol in American Society (6)

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

BEHS 383 Humor in American Society (6)

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

BEHS 398L Introduction to Mediation (1)

An overview of the use of mediation skills in various settings, with an emphasis on interpersonal relationships and communication. Mediation skills are considered with regard to the workplace (e.g., disputes between co-workers and between labor and management) and family (e.g., familial conflict and divorce). The broad range of disputes requiring mediation in the public school setting are also explored. Students may receive credit for only one of the following courses: BEHS 398L or SPCH 426.

BEHS 398M Polar Explorations (3)

An introduction to the history of Arctic and Antarctic exploration. The national, scientific, and personal issues that drove explorers into the frozen (but not lifeless) wilderness to live in extreme environments are explored. Heroism, sacrifice, compassion, and leadership in the face of the unknown and daunting odds are discussed. The words of the explorers themselves are used to analyze the characteristics of those who returned and those who did not.

BEHS 398N Reconnecting with Nature (3)

An examination of humankind's disconnection from nature in today's highly technological age. Topics include the social forces that have fostered this separation and the effect that such separation has on individuals and society. Experiential nature-based activities are used to explore the natural and beneficial bond between humankind and nature.

BEHS 454 Domestic and Family Violence (6)

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

BEHS 486A Internship in Behavioral Science Through Co-op (3)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in behavioral and social science. At least 12 hours per week must be devoted to new tasks for a total of 180 hours during the Co-op session; four new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to behavioral and social science and that continues to advance application of academic theory in the work-place. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

BEHS 486B Internship in Behavioral Science Through Co-op (6)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in behavioral and social science. At least 20 hours per week must be devoted to new tasks for a total of 300 hours during the Co-op session; five to eight new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to behavioral and social science and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship course-work through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

BSCI 105 Principles of Biology I (4)

(For students majoring or minoring in a science. Fulfills the laboratory science requirement.) Prerequisite: MATH 107 or MATH 115. An introduction to the basic principles of biology, with special emphasis on cellular and molecular biology. Students may receive credit for only one of the following courses: BIOL 101, BIOL 105, BOTN 101, BSCI 105, or ZOOL 101.

BSCI 222 Principles of Genetics (4)

(For students majoring or minoring in a science. Does not satisfy the laboratory science requirement.) Prerequisites: BIOL 105 (or BSCI 105) and CHEM 113. A discussion of the principles and mechanisms of heredity and gene expression, including plant, animal, and microbial organisms. Students may receive credit for only one of the following courses: BIOL 220, BIOL 222, or BSCI 222.

BSCI 223 General Microbiology (4)

For students majoring or minoring in a science. Fulfills the laboratory science requirement. Prerequisite: BIOL 105 or BSCI 105. An investigation of fundamental concepts in morphology, physiology, genetics, immunology, ecology, and pathogenic microbiology. Applications of microbiology to medicine, the food industry, and biotechnology are considered. Students may receive credit for only one of the following courses: BSCI 223, MICB 200, or   MICB 338A.

BSCI 230 Cell Biology and Physiology (4)

(For students majoring or minoring in a science. Fulfills the laboratory science requirement.) Prerequisites: BSCI 105 and CHEM 103. A study of the biochemical and physiological mechanisms underlying cellular function. Topics include the properties of cells that make life possible and the mechanisms by which cells provide energy, reproduce, and regulate and integrate with each other and their environment. Students may receive credit for only one of the following courses: BSCI 230 or ZOOL 211.

BSCI 424 Pathogenic Microbiology (4)

(Prerequisite: BSCI 223 or BIOL 230. Fulfills the laboratory science requirement.) A study of the role of bacteria and fungi in the diseases of humans. Emphasis is on the differentiation and culture of microorganisms; types of disease; modes of disease transmission; and prophylactic, therapeutic, and epidemiological aspects. Students may receive credit for only one of the following courses: BIOL 437, BSCI 424, or MICB 440.

BSCI 436 Drug Action and Design (3)

(For students majoring or minoring in a science.) Prerequisite: CHEM 243. A discussion of the introductory principles of pharmacology. Emphasis is on "magic bullets," novel therapies, and drug design. Students who have completed PCOL 450A or PCOL 450B may not receive credit for BSCI 436.

BIOL 101 Concepts of Biology (3)

(For students not majoring in a science.) An introductory study of the fundamental organization, processes, and interdependence of living organisms, considering the implications of the influence of human beings in the biological world. Students may receive credit for only one of the following courses: BIOL 101 or BIOL 105.

BIOL 102 Laboratory in Biology (1)

(For students not majoring in a science. Fulfills the laboratory science require ment only with previous or concurrent credit for BIOL 101.) Prerequisite or co-requisite: BIOL 101 or equivalent. A laboratory study of the concepts underlying the organization and interrelationships of living organisms. Students may receive credit for only one of the following courses: BIOL 102 or BIOL 105.

BIOL 164 Introduction to Human Anatomy and Physiology (3)

Prerequisite: BIOL 101, BIOL 105, or BIOL 160. An introduction to the anatomy and physiology of the human organism. Topics include basic concepts of physics and chemistry that are necessary for understanding biological functions and the structure and function of cells, tissues, and the major organ systems in the body. Students may receive credit for only one of the following courses: BIOL 164 or GNSC 161.

BIOL 181 Life in the Oceans (3)

A study of the major groups of plants and animals in various marine environments, as well as their interactions with each other and the nonliving components of the ocean. The impact of human activity on life in the ocean and the potential uses and misuses of the ocean are discussed. Students may receive credit for only one of the following courses: BIOL 181 or ZOOL 181.

BIOL 211 Environmental Science (3)

(Fulfills the civic responsibility requirement.) A survey of ecological principles as they apply to the interrelated dilemmas of overpopulation, pollution, the increasing consumption of natural resources, and the ethics of land use. Students may receive credit for only one of the following courses: BIOL 211, BOTN 211, or PBIO 235.

BIOL 215 Population Biology and General Ecology (3)

A general introduction to population and community biology. Topics include evolution, population genetics, population growth and steady states, age structure of populations, multi-species dependencies, and ecosystem energetics. Illustrations are drawn both from natural populations and human populations. Students may receive credit for only one of the following courses: BIOL 215 or ZOOL 270.

BIOL 220 Human Genetics (3)

(For students not majoring in a science.) An introduction to genetics, focusing on the human organism. Topics include transmission and biochemical genetics, mutation, the behavior of genes in populations, and genetic engineering. The roles of recent discoveries in the treatment of genetic diseases, cancer, and organ transplantation are examined. Students may receive credit for only one of the following courses: BIOL 220, BIOL 346, ZOOL 146, or ZOOL 346.

BIOL 222 Principles of Genetics (3)

Prerequisites: BIOL 105 (or BSCI 105) and CHEM 103. A study of the principles and mechanisms of heredity and gene expression. Plant, animal, and microbial organisms are considered. Students may receive credit for only one of the following courses: BIOL 220, BIOL 222, or BSCI 222.

BIOL 230 General Microbiology (4)

For students majoring or minoring in a science. Fulfills the laboratory science requirement. Prerequisite: BIOL 105 or BSCI 105. An investigation of fundamental concepts in morphology, physiology, genetics, immunology, ecology, and pathogenic microbiology. Applications of microbiology to medicine, the food industry, and biotechnology are considered. Students may receive credit for only one of the following courses: BIOL 230, BSCI 223, MICB 200, or MICB 388A.

BIOL 240 Elements of Biochemistry (3)

Prerequisite: CHEM 104, CHEM 233, or CHEM 235; one course in biology or zoology emphasizing the molecular and cellular basis of life strongly recommended. An over-view of the basic chemistry and metabolism of most molecules that have biological importance. Students who have completed BCHM 261, BCHM 461, BCHM 462, BIOL 440, or BIOL 441 may not receive credit for BIOL 240.

BIOL 301 Human Health and Disease (3)

For students not majoring in a science. A survey of mechanisms of disease and their expression in major organ systems of the human body. Topics include infections, cancer, heart disease, lung disease, diabetes, stroke, malnutrition, poisoning by environmental toxins, stress, inflammation, disorders of the immune system, and aging. Prevention of disease through control of risk factors and early detection is emphasized. Students may receive credit for only one of the following courses: BIOL 301 or BIOL 398H.

BIOL 304 The Biology of Cancer (3)

For students not majoring in a science.) An overview of the biological basis of cancer. The development and progression of cancer are considered at the level of cell structure and function. The roles of genes and proteins are also examined. Students may receive credit for only one of the following courses: BIOL 304 or GNSC 398C.

BIOL 305 The Biology of AIDS (3)

(For students not majoring in a science.) An overview of Acquired Immune Deficiency Syndrome (AIDS) from a biological perspective. The development and treatment of AIDS and human immuno-deficiency virus (HIV) infection are considered with respect to cells, viruses, genes, and proteins.

BIOL 307 The Biology of Aging (3)

For students not majoring or minoring in a science. An overview of the biological basis of aging. Topics include typical changes that occur in cells, molecules, metabolism, and structure during the aging process. The development and progression of several diseases associated with aging (including cancer, neurodegenerative diseases such as Alzeheimer's and Parkinson's disease, osteoporosis, and loss of visual acuity and memory) are discussed with respect to the role of genes, proteins, and environmental influences. Students may receive credit for only one of the following courses: BIOL 307 or BIOL 398V

BIOL 330 Applied Microbiology (4)

Fulfills the laboratory science requirement. Prerequisite: BIOL 230 or BSCI 223. A discussion of the ways microorganisms and microbiological principles are involved in industrial processes. The control of microorganisms, industrial fermentations, antibiotics, and sterilization are addressed. Students may receive credit for only one of the following courses: BIOL 330 or MICB 310.

BIOL 332 Microbiology and the Public (3)

For students not majoring or minoring in a science. An overview of the sociopolitical effects of microbial phenomena. The roles of epidemic disease, water pollution, immunization requirements, and solid-waste disposal in the current social and political problems of the United States are assessed. Students may receive credit for only one of the following: BIOL 332 or MICB 322.

BIOL 334 Vaccines and Society (3)

For students not majoring in a science. An overview of the development and testing of vaccines, the prevention of disease by vaccines, and the role of vaccines in society. The scientific, clinical, and practical aspects of vaccines and vaccination are considered with regard to the immune system. Topics include the use of vaccines in disease prevention, epidemics, emerging infectious agents, and biological terrorism. Topics are considered from a historical perspective, as well as in the context of current vaccine development research. Students may receive credit for only one of the following courses: BIOL 334, BIOL 398R, GNSC 398H, or MICB 388D.

BIOL 335 Vaccine Development (3)

For students majoring or minoring in a science. Prerequisite: BIOL 230 or BSCI 223. A discussion of the basic principles of vaccine development, including bacterial and viral vaccines. Whole organism and subunit vaccines, as well as the use of adjuvant and animal models, are discussed. Students may receive credit for only one of the following courses: BIOL 335 or MICB 388D.

BIOL 337 Medical Virology (3)

For students interested in health-related careers. Prerequisite: BIOL 230 or BSCI 223. A summary of viral structure and multiplication, a review of the biology of the immune response, and systematic coverage of the pathogenesis and pathology of major viral diseases. Focus is on the host's response to viral infection. Students may receive credit for only one of the following courses: BIOL 337 or MICB 360.

BIOL 350 Molecular and Cellular Biology (3)

Prerequisite: BIOL 101, BIOL 105, BIOL 230, BSCI 105, BSCI 223, or equivalent. An introduction to the basic structure and function of cells, with an emphasis on eukaryotic cell biology. Topics include cell-cycle growth and death; protein structure and metabolism; gene replication, repair, recombination, and expression; RNA processing and metabolism; and molecular transport, traffic, and signaling. The principles and uses of recombinant DNA and genetic engineering technology are also discussed. Students may receive credit for only one of the following courses: BIOL 350 or BIOL 398S.

BIOL 353 Microbial Genetics (3)

Prerequisite: BIOL 230, BSCI 223, or equivalent. An examination of genetic systems in bacteria and bacterial viruses. Topics include bacterial and viral gene structure and function, fundamentals of mutation, regulation of gene expression in prokaryotes, mobile genetic elements, and transmission genetics. Emphasis is on the methods of genetic analysis used to study biological function, including both classical and molecular approaches. Students may receive credit for only one of the following courses: BIOL 353 or MICB 380.

BIOL 355 Molecular Biology Laboratory (3)

(For students majoring or minoring in a science. Fulfills the laboratory science requirement.) Prerequisite: BIOL 222, BIOL 230, BIOL 350, or BSCI 223. A laboratory study of current molecular biology and genetic engineering procedures, including the isolation of DNA, the use of restriction enzymes, cloning procedures, polymerase chain reaction (PCR) analysis, and gene expression analysis. Hands-on experience is provided.

BIOL 357 Bioinformatics (3)

Recommended: Some background in either computer science or introductory biology. An introductory course in the use of computers to analyze DNA and protein sequences, and the significance of these analyses. Topics include genome analysis, evolutionary relationships, structure-function identification, pattern recognition, database searches and structures, and algorithms. Students may receive credit for only one of the following: BIOL 357 or   BIOL 398U.

BIOL 360 Developmental Biology (3)

Prerequisite: BIOL 101, BIOL 105, BSCI 105, or equivalent. An overview of animal development, with an emphasis on the underlying cellular and molecular mechanisms that guide animal development. Topics include fertilization, embryonic cleavage, gastrulation, early vertebrate morphogenesis, neural development, fate determination by cytoplasm specification and cell-cell interactions, transcriptional and post-transcriptional gene regulation mechanisms that mediate developmental processes, homeobox gene families, protein gradients, pattern formation, and sex determination and gametogenesis. Students may receive credit for only one of the following: BIOL 360 or BIOL 398T.

BIOL 362 Neurobiology (3)

(For students majoring or minoring in a natural science or psychology.) Prerequisite: BIOL 101, BIOL 105, or BSCI 105. An in-depth discussion of the biology and development of the nervous system. Topics include neural structure and function, communication at the synapse, membrane receptors and intra- and intercellular signaling systems, gene regulation, gross organization of the brain and spinal cord, the processing of sensory information, the programming of motor responses, and higher functions such as learning, memory, cognition, and speech.

BIOL 398A Human Evolution and Ecology (1)

An examination of the varied biological evidence for the theory of evolution, including fossil records, DNA analysis, and geological and biogeographical changes. The struggle for existence, the survival of the fittest, and adaptation to the environment are discussed. Topics include Darwinian medicine, the evolution of disease, and the role of evolution in the human ecosystem.

BIOL 398C Regulation of Gene Expression (1)

Prerequisite: BIOL 101, BIOL 105, or equivalent. An analysis of the mechanisms by which gene expression is regulated. Topics include the role of DNA sequence and structure, transcription factors, and cell signaling in gene expression. Regulation is also considered in the context of development, environmental influences, and human diseases.

BIOL 398D The Ecology of Deep-Sea Hydrothermal Vents (1)

A study of the trench ecosystem and the organisms inhabiting the oceans' deepest biological realm—home of the "black smokers" and the animals that live without benefit of sunlight and its associated photosynthetic activity. Topics include the geological, metabolic, and evolutionary significance of this region; the methods used to study these remote regions (including the use of manned and unmanned submersibles); and the possible use of trenches as refuge during global extinction events.

BIOL 398F Extremeophiles (1)

A survey of microbes that thrive in extreme environments, including extremes in temperature, pH, hydration, and metal concentration. Topics include the utility of these organisms to industry and medicine and the possibility of life in outer space.

BIOL 398G Bacteria and Viruses (1)

An introductory study of the basic structure, genetic and regulatory systems, and life cycles of bacteria and viruses. Students may receive credit for only one of the following courses: BIOL 398G, BSCI 223, MICB 200, or MICB 388A.

BIOL 398I Biotechnology and Genetic Engineering (1)

Science background not required. An introduction to the basic principles and applications of biotechnology and genetic engineering to medicine, agriculture, and industry. Topics include gene therapy, cloning, the identification and isolation of genes involved in human health and disease, diagnostic and forensic testing, the human genome project, bioremediation, microbial and plant bioengineering, and bioinformatics. Students may receive credit for only one of the following courses: BIOL 398I or GNSC 398B.

BIOL 398J The Role of Nutrition in Cancer and Heart Disease (1)

A study of the relationship between diet and the development of cancer and heart disease at the level of molecules, cells, and genes. Topics include the scientific and epidemiological evidence supporting the roles of various foods, nutrients, antioxidants, fiber, fats, and genetics in the progression or prevention of these two major causes of mortality. Students may receive credit for only one of the following courses: BIOL 398J or GNSC 398F.

BIOL 398P Pesticides and the Environment (1)

A survey of the history of pesticides, their importance in America's environmental "awakening," and their significance as contaminants. The evolution of pesticide usage, from overdependence to attempts at reduction, is also covered.

BIOL 399 Independent Study in Life Science (1–6)

Prerequisite: 6 credits in upper-level BIOL courses and agreement of faculty member to act as supervisor. Directed independent study of topics of special interest not covered by regularly scheduled courses in the life sciences. May be repeated to a maximum of 6 credits when topics differ.

BIOL 400 Life Science Seminar (3)

(For students majoring or minoring in a science.) Prerequisite: BIOL 101, BIOL 105, or BSCI 105. An examination of current topics in the life sciences through seminars and discussions based on representative publications in the recent and primary literature.

BIOL 420 Epidemiology and Public Health (2)

Prerequisite: BIOL 230, BIOL 398G, or BSCI 223. A history of epidemiology and its characteristic features. The role of vital statistics is examined, and the critical responsibilities of public health are highlighted. Students may receive credit for only one of the following courses: BIOL 420 or MICB 420.

BIOL 422 Epidemiology of Emerging Infections (3)

Prerequisite: BIOL 230, BIOL 398G, or BSCI 223. An investigation of factors contributing to the emergence of new infectious diseases and the resurgence of diseases once thought to have been controlled. Disease symptoms, patterns of spread, and possible control measures are examined for new infectious diseases (such as Lyme disease and AIDS and those caused by E. coli 0157, the Ebola virus, hantaviruses, and cryptosporidia); resurgent diseases (such as small pox, anthrax, botolism, bubonic plague, dengue, influenza, tuberculosis, cholera, and malaria) and those caused by flesh-eating bacteria are also discussed. Students may receive credit for only one of the following courses: BIOL 422 or MICB 388E.

BIOL 430 Microbial Physiology (3)

Prerequisite: BIOL 230, BIOL 240, BSCI 223, or equivalent. An investigation of the processes of growth in microbial cells and populations. Processes studied include the metabolism of fermentation, the physiology of anaerobiosis, and the conservation and transformation of energy in bacterial membranes. The efficiency with which energy is used for growth is assessed; the structure and transport of membranes are examined. Bacterial chemotaxis and the regulation of replication in bacterial chromosomes are examined; the connections between RNA and protein synthesis are traced; and the control of metabolic path-ways is considered. Students may receive credit for only one of the following courses: BIOL 430 or MICB 470.

BIOL 431 Microbial Ecology (3)

Prerequisites: BIOL 230 (or BSCI 223) and CHEM 243. A study of the interaction of microorganisms with the environment, with other microorganisms, and with higher organisms. The roles of microorganisms in the biosphere are assessed. The relation of microorganisms to current environmental problems is examined. Students may receive credit for only one of the following: BIOL 431 or MICB 480.

BIOL 434 General Virology (3)

Students seeking to satisfy the laboratory science requirement should take BIOL 435. Prerequisite: BIOL 230 or BSCI 223. A broad investigation of viruses. Topics include the physical and chemical nature of viruses, methods of cultivation and assay, modes of replication, characteristics of the major viral groups, and the types of viral diseases. Emphasis is on viral genetics and the oncogenic viruses. Students may receive credit for only one of the following courses: BIOL 434, BIOL 435, MICB 460, or MICB 461.

BIOL 435 General Virology with Laboratory (4)

Fulfills the laboratory science requirement. Prerequisite: BIOL 230 or BSCI 223. Comprehensive survey of viruses and techniques for their investigation. Topics include the physical and chemical nature of viruses, methods of cultivation and assay, modes of replication, characteristics of the major viral groups, and the types of viral diseases. Emphasis is on viral genetics and the oncogenic viruses. Students may receive credit for only one of the following courses: BIOL 434, BIOL 435, MICB 460, or MICB 461.

BIOL 437 Pathogenic Microbiology (4)

Fulfills the laboratory science requirement. Prerequisite: BIOL 230 or BSCI 223. An investigation of the role that bacteria and fungi play in human disease. Emphasis is on learning to differentiate and culture microorganisms. Types of disease and their modes of transmission are reviewed. Prophylactic, therapeutic, and epidemiological aspects of microbial diseases are investigated. Students may receive credit for only one of the following courses: BIOL 437 or MICB 440.

BIOL 438 Immunology (4)

Fulfills the laboratory science requirement. Prerequisite: BIOL 230 or BSCI 223. An exposition of the principles of immunity and hypersensitivity. The fundamental techniques of immunology are presented. Students may receive credit for only one of the following courses: BIOL 438 or MICB 450.

BIOL 486A Internship in Life Science Through Co-op (3)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in the life sciences. At least 12 hours per week must be devoted to new tasks for a total of 180 hours during the Co-op session; four new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to biology and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

BIOL 486B Internship in Life Science Through Co-op (6)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in the life sc1ences. At least 20 hours per week must be devoted to new tasks for a total of 300 hours during the Co-op session; five to eight new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to biology and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

BMGT 110 Introduction to Business and Management (3)

(For students with little or no business background. Recommended preparation for many other BMGT courses.) A survey of the field of business management. Topics include human relations, technology in business, ethical behavior, the environment, global and economic forces, organization, quality, products and services, functional management, and current issues and developments.

BMGT 230 Business Statistics (3)

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

BMGT 301 Computer Systems for Business (3)

An overview of computer information systems and computer applications used in business and not-for-profit organizations. Hardware, software, procedures, systems, and human resources are explored. Integration and application in business and in other segments of society are assessed. Various business software applications, including databases and spreadsheets, and use of the World Wide Web are examined. Students may receive credit for only one of the following courses: BMGT 301, CAPP 101, CAPP 300,   CMST 300, IFSM 201, or TMGT 201.

BMGT 304 Managing E-Commerce in Organizations (3)

An introduction to the ways in which organizations create, identify, and distribute information; market products; and manage organizational units on the Internet using electronic commerce techniques, i.e., e-commerce management. Topics include e-commerce management principles, management of different types of organizations, integration of human and information technology resources, training and development, and information systems. The management of business units to implement technological marketing and knowledge management strategies and the creation of new roles and responsibilities for managers in the e-commerce environment of organizations are also covered. Students may receive credit for only one of the following courses: BMGT 304 or BMGT 388M.

BMGT 305 Knowledge Management (3)

Course applications require a PC, modem, and Internet service provider. An introduction to the ways in which organizations create, identify, capture, and distribute knowledge, i.e., knowledge management. Topics include knowledge management principles; new organizations and intellectual capital; integration of human resources, training and development, information systems, and business units to implement knowledge management strategies; and new roles and responsibilities for knowledge workers. Students may receive credit for only one of the following courses: BMGT 305 or BMGT 388C.

BMGT 312 Women in Business (3)

Prerequisite: BMGT 110 or equivalent. An examination of women's evolving roles in the business world and the forces that have created change and opportunities. How organizational theory, human resource practices, industrialization, and information technology have created new paths for professional growth is explored. Students may receive credit for only one of the following courses: BMGT 312, BMGT 398I, or MGMT 398I.

BMGT 313 Women as Entrepreneurs (3)

A study of the qualities that help women excel in business. Topics include the rapid increase in female-owned companies, especially small businesses, and ways women have overcome the barriers they face in starting a business. The reasons for female exclusion from traditional financing alternatives, along with current funding options for women, are explored. Inspirational real-life examples of women who have achieved success are used. Students may receive credit for only one of the following courses: BMGT 313 or BMGT 388H.

BMGT 314 Women as Leaders (3)

A study of the opportunities and challenges for women in leadership positions. Focus is on increasing awareness of the unique talents and skills of women and identifying ways to help women change historically self-limiting beliefs. Topics include personal perceptions, traditional stereotypes of femininity, and the evaluation of leadership and coaching skills. Success stories of leading women managers are used to illustrate the key principles. Students may receive credit for only one of the following courses: BMGT 314 or BMGT 388J.

BMGT 317 Problem Solving (3)

Presentation of the theoretical and practical aspects of strategies used in solving problems, an activity that takes up much of the manager's day. Approaches evaluated include holistic thinking, the use of analogy, internal brainstorming and other methods of creative thinking, the development of an ability to shift perspectives, the scientific method, the analysis of language, systems analysis, and graphic representations. Case studies are used to illustrate the definition of the problem, the formulation of hypotheses, and the collection and analysis of data. Students may receive credit for only one of the following courses: BMGT 317 or TMGT 310.

BMGT 324 Home-Based Business (1)

An introduction to the concept of the home-based business as a small business. Topics include the costs and benefits of operating a small home-based business venture and the types of businesses that can be successfully operated from the home. Special considerations and laws that apply to home-based business operations are also covered. Students may receive credit for only one of the following courses: BMGT 324, BMGT 398F, MGMT 324, MGMT 398B, or SBUS 398B.

BMGT 325 The Small-Business Plan (1)

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

BMGT 327 Financial Analysis and Planning for Entrepreneurs (1)

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

BMGT 330 Entrepreneurship and New Venture Planning (3)

Recommended: Familiarity with computers and business software. An overview of entrepreneurship and planning new business ventures for prospective entrepreneurs and managers. Topics include developing entrepreneurial ideas and innovations; strategic planning; marketing research, analysis, and planning; advertising, promotion, and sales; financial planning and financing; operations and services planning; human resources planning and management; analysis of risk; information management strategy and the advent of the World Wide Web; legal aspects of new venture formation; and global venturing. Entrepreneurial theory, profiles and roles of entrepreneurs, business life cycles, entrepreneurial behavior, use of computer software to aid in planning, and entrepreneurial management and technology issues are explored. Discussion and group activities focus on development of a business plan, the factors that should be considered, and the entrepreneur's role in developing and operating a new business. Students may receive credit for only one of the following courses: BMGT 330, MGMT 330, or SBUS 200.

BMGT 334 Managing New Ventures (3)

Prerequisite: Familiarity with new venture planning; BMGT 330 recommended. An exploration of the start-up and development of business ventures using an integrated approach to entrepreneurship, growth, and management. Topics include opportunities at different stages, legal structure, production of goods and services, marketing strategies, access to capital and capital formation, policy formation, and development of a management philosophy. How entrepreneurs make decisions—on growth of the venture, organizational structure, hiring of key employees, information systems, software and hardware use, and building of corporate culture—is also examined. Problems and pitfalls to avoid, implementation and periodic review of the business plan, global issues, cultural diversity, and the use of new technologies are considered. Students may receive credit for only one of the following courses: BMGT 334 or MGMT 334.

BMGT 336 Managing Strategic Venture Growth and Industry (3)

Prerequisite: Familiarity with the business functions and factors involved with planning and managing a new venture; BMGT 330 recommended. A study of business ventures during the growth and maturity phases of development using an integrated approach to entrepreneurial management. Growth problems, major issues, and management strategies for businesses in the later stages of development are explored. Topics include budgeting and planning for continued growth; developing new products, features, and product enhancements; and identifying new sources of capital and expanding into other domestic and global markets. Consideration is given to how to implement cost controls, reorganize to rekindle entrepreneurial intensity, encourage innovation, and make staffing changes to achieve growth. Cultural diversity and the use of new technologies are also examined. Students may receive credit for only one of the following courses: BMGT 336 or MGMT 336.

BMGT 337 Building the Entrepreneurial Team (3)

Prerequisite: Familiarity with business functions and factors involved with planning, organizing, and managing a new venture; BMGT 330, BMGT 334, or BMGT 336 recommended. An exploration of growing ventures that focuses on the development of the business and key personnel and includes entrepreneurial human resource and support issues, ethics, and accountability. The appropriateness of the form of the venture—partnership, joint venture, strategic alliance, or license—is examined. Topics include ways of controlling and minimizing conflicts in the team; recruiting, motivating, and retaining team members; ensuring the responsibility and accountability of team members; and managing the team. Functional responsibilities and relationships are also discussed. Analysis covers issues related to the organization's structure, protection of proprietary information, intellectual property assignment, location and performance of work, the evolving responsibility of the entrepreneur, negotiation with employees, and the multicultural employee base. Students may receive credit for only one of the following courses: BMGT 337 or MGMT 337.

BMGT 339 Government and Business Contracting (3)

Designed for both entrepreneurs evaluating contracting and grant opportunities for the first time and people working in medium to large firms.) An investigation of the opportunities available for new business development and government and business contracting, as well as the problems involved. Topics include various methods governments and businesses use in determining requirements, choosing the procurement method, evaluating contractors and grant proposals, setting terms and conditions for contracts, awarding contracts, and administering contracts. Both theory and practice are examined with respect to procurement, purchasing procedures, types of contracts, cost and price analysis, and methods of writing proposals, obtaining helpful information, and establishing and maintaining internal controls. Students may receive credit for only one of the following courses: BMGT 339, MGMT 220, or MGMT 339.

BMGT 340 Business Finance (3)

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

BMGT 341 Finance for the Nonfinancial Manager (3)

May be used as either a stand-alone survey course in finance or an introduction to higher-level finance courses for those who wish to pursue the subject further.) An introduction to the financial fundamentals needed by functional experts and upwardly mobile managers in human resources, marketing, production, and general management. Focus is on preparation for assuming higher-level corporate positions or undertaking entrepreneurial activities that require a basic knowledge of finance. The world of finance and its argot and operations are presented in a simple, step-by-step manner. Topics include financial statements and forecasting, capital budgeting, project evaluation, working capital management, and international financial management. Emphasis is on practical applications more than theory. Students may receive credit for only one of the following courses: BMGT 340, BMGT 341, MGMT 398D, or TMGT 320.

BMGT 342 Fundamentals of Building Wealth (3)

A practical overview of personal finance management and creation of wealth that blends financial theory and applications. The development of personal financial management skills (e.g., budgeting income and expenditures and planning for financial security and retirement) is encouraged, while an understanding of elements of the U.S. financial structure (such as savings and investment alternatives, financing and credit sources, the role of insurance in protecting income and assets, and federal income tax issues) is provided. Students may receive credit for only one of the following courses: BMGT 342 or BMGT 388N.

BMGT 343 Investments (3)

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

BMGT 345 Property and Liability Insurance (3)

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

BMGT 346 Risk Management (3)

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

BMGT 347 Life Insurance (3)

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

BMGT 364 Management and Organization Theory (3)

Prerequisite: BMGT 110 or at least two years of business and management experience. A study of the development of theories about management and organizations. Processes and functions of management discussed include the communication process, the role of the manager as an organizer and director, the determination of goals, and the allocation of responsibilities. Students may receive credit for only one of the following courses: BMGT 364, TEMN 202, TEMN 300, TMGT 301, or TMGT 302.

BMGT 365 Leadership and Change (3)

Prerequisite: BMGT 364 or equivalent. An exploration of the challenges to effective leadership and management that the contemporary manager faces in a rapidly changing environment. Focus is on leadership styles and motivational techniques conducive to high performance in various organizational settings with a very diverse workforce. Topics include issues in the design of organizations, the corporate/organizational culture, the design and enrichment of jobs, and communication within organizations. Students may receive credit for only one of the following courses: BMGT 365, MGMT 300, MGST 310, or TEMN 310.

BMGT 366 Managing in the Public Sector (3)

An exploration of the nature of public-sector management, including issues of public accountability, the budgetary process, and personnel. Models of decision making and the characteristics of the policy-making process at federal, state, and local levels are examined. Methods and mechanisms of policy analysis, including cost/benefit analysis and program evaluation, are introduced. Students may receive credit for only one of the following courses: BMGT 366 or TMGT 305.

BMGT 368 Managing Organizational Change (3)

Prerequisite: BMGT 364 or equivalent. Introduction to the dynamics of institutionalizing small- and large-scale organizational change efforts. The objective is to provide insight to the limitations of the concept of planned organizational change. The factors that inhibit change from occurring gracefully and the role that individual behavior, group behavior, organizational structure, and organizational culture have in the planned change process are explored. Students may receive credit for only one of the following courses: BMGT 368 or TMGT 350.

BMGT 370 Introduction to Transportation Management (3)

Prerequisite: BMGT 364 or equivalent. An examination of transportation as it relates to the movement of people and goods between points. Topics include the roles of the private and public sectors (including deregulation), carrier modes, demand for passenger and freight transportation, transportation pricing, management, contemporary public policy issues, and managerial strategies in transportation.

BMGT 372 Introduction to Logistics Management (3)

Prerequisite: BMGT 364 or equivalent. An examination of the operations involved in managing the movement and storage of materials, supplies, work in progress, and finished goods. Topics include the trade-offs between cost and service and between the purchase and supply of raw materials; the warehousing and control of inventory; industrial packaging; materials handling within warehouses; and the distribution of finished goods to customers required to minimize costs, maximize profits, or increase customer service levels.

BMGT 375 Procurement Management (3)

Prerequisite: BMGT 364 or equivalent. An overview of the procurement process in industry and its strategic importance in the global marketplace. Topics include the purchasing process, requirements planning, pricing analysis, global competition, distribution, and value analysis. Students may receive credit for only one of the following courses: BMGT 375, MGMT 347, MGMT 375, or TEMN 360.

BMGT 378 Legal Environment of Business (3)

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

BMGT 380 Business Law I (3)

(Strongly recommended for students seeking careers as CPAs, lawyers, or managers. Fulfills the civic responsibility requirement.) Prerequisite: BMGT 110 or at least two years of business and management experience. An in-depth conceptual and functional analysis and application of legal principles relevant to the conduct and understanding of commercial business transactions. Topics include the legal, ethical, and social environment of business; agencies, partnerships, and other forms of business organizations; and contracts and sales agreements. Salient legal aspects of international business are also discussed. Assignments may include conducting relevant research using computer databases and networks (such as LEXIS-NEXIS and the World Wide Web) as well as other methods for accessing information.

BMGT 381 Business Law II (3)

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

BMGT 383 Planning and Control of Services (3)

Prerequisites: BMGT 230 and 364, or equivalent. An overview of the operations of manufacturing and service enterprises, concentrating on production and operations management, planning, and control. Topics include demand forecasting, production/service planning and control, materials planning and control, and capacity planning. Case studies are used to analyze the manufacturing environment in terms of operational planning, use of teams, teamwork, and decision making to solve problems that commonly confront managers and supervisors. Fundamentals of the analytical method are introduced early to help solve problems in the design, operation, and control of systems. Students may receive credit only once under this course number and for only one of the following courses: BMGT 383, BMGT 385, MGMT 340, MGST 318, or TEMN 318.

BMGT 384 Managing for Quality (3)

Not open to students who have previously taken MGST 398L, MGST 398M, and MGST 398N. Course applications require a PC, spreadsheet and statistical software, and access to the World Wide Web.) Prerequisites: BMGT 230 and 364, or equivalent. A survey of methods used to apply principles of total quality management (TQM) in various organizational settings to improve quality and productivity. Topics include evolution of TQM theory; TQM models, tools, and techniques; development of TQM teams; production of graphs and charts; strategies for meeting customer expectations; benchmarking; and comparison of TQM applications. Spreadsheet and statistical software may be used to develop statistical process control charts and graphs. Students may receive credit for only one of the following courses: BMGT 384, BMGT 425, or MGMT 425.

BMGT 385 Production and Operations Management (3)

Prerequisites: BMGT 364 and 230, or equivalent. An overview of the operations of manufacturing and service enterprises, concentrating on production management, planning, and control. Topics include demand forecasting, materials planning and control, and capacity planning. Case studies are examined to analyze the manufacturing and service environments in terms of operational planning, the use of teams, teamwork, and decision making regarding problems commonly confronting managers and supervisors. Fundamentals of the analytical method are introduced early to help solve problems in the design, operation, and control of systems. Students may receive credit only once under this course number and for only one of the following courses: BMGT 383, BMGT 385, MGMT 340, MGST 318, or TEMN 318.

BMGT 388B Virtual Management (1)

(Course applications require a PC, modem, and Internet service provider.) An overview of the key organizational and individual issues involved in technology-assisted employee management, i.e., virtual management. Topics include gauging organization and employee readiness for technology-enabled communication and telecommuting; identifying appropriate job types and flexibility options; applying effective communication strategies and methods when utilizing computers and telecommunication technologies; and implementing and evaluating management procedures and policies in flexible organizations.

BMGT 392 International Business Management (3)

(Fulfills the international perspective requirement.) Prerequisites: BMGT 110 (or at least two years of business and management experience) and ECON 203, or equivalent. Examination and analysis of international business in its historical, theoretical, environmental, and functional dimensions. Focus is on understanding the growing economic interdependence of nations and the impact on managerial and corporate policy decisions that transcend national boundaries. Topics include the nature and scope of international business; the institutional, sociocultural, political, legal, ethical, and economic environments; trade, foreign investment, and development; transnational management, including global operations, strategic planning, human resources, marketing, and finance; and international business diplomacy and conflict resolution. Students may receive credit for only one of the following courses: BMGT 392, MGMT 305, or TMGT 390.

BMGT 393 Real Estate Principles I (3)

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

BMGT 394 Real Estate Principles II (3)

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

BMGT 395 Customer Service Management (3)

Prerequisite: BMGT 364 or equivalent. A study of customer services accompanying a core product and service products themselves. Problems and issues related to the service mix, service-level decisions, the formulation of service policies, customer service management, the development of customer service staff, training, and evaluation are analyzed. Discussion covers customer information, customer surveys and suggestions, the handling of complaints and adjustments, techniques for dealing with difficult and angry customers, dissemination of information, credit services, maintenance, technical service, and the development of new programs. Students may receive credit for only one of the following courses: BMGT 395, BMGT 398A, MGMT 395, or MGMT 398A.

BMGT 396 Customer Consultation and Needs Analysis (3)

Prerequisite: BMGT 395 or equivalent. A study of customer consultation and needs analysis for the frontline supervisor of customer service personnel. Issues such as working with internal staff and external customers to develop effective processes, procedures, and ongoing communication are explored. Focus is on establishing and maintaining a high level of customer satisfaction and loyalty. Skills covered include conducting formal and informal needs analysis and recommending improvements such as training, documentation, job aids, and electronic performance support systems; documenting and securing agreement on requirements and commitments; developing communication and work process flows to ensure quality of service; designing and delivering presentations; and creating customer satisfaction surveys and suggesting service improvements. Students may receive credit for only one of the following courses: BMGT 388I or BMGT 396.

BMGT 397 Customer Satisfaction and Loyalty (3)

A study of various approaches used for determining the level of customer satisfaction with the products and services of a small business. Techniques for setting customer-satisfaction goals and putting systems in place to achieve those goals are examined. Students may receive credit for only one of the following courses: BMGT 397 or MGMT 398F.

BMGT 398 Special Topics in Business and Management (1–3)

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

BMGT 411 Systems Performance (3)

Presentation of analytical approaches to comprehending systems. Focus is on powerful techniques for solving problems of managing people and for understanding their behavior in organizations. Examples of well-known systems failures and catastrophes are used to illustrate systems analysis. Case studies of manufacturing companies, a municipal government, and a nuclear power plant are investigated. Techniques delineated include systems diagramming, boundary setting, and systems modeling. Students may receive credit for only one of the following courses: BMGT 411 or TMGT 411.

BMGT 412 Program Analysis and Evaluation (3)

A survey of the techniques and methodologies used to determine whether programs are operating successfully. Major topics covered include identifying the goals and objectives of a program, examining the use of specific research designs for collecting data, collecting and using data/information for analysis and evaluation, and recognizing the functions that statistics serve in evaluation processes. Students may receive credit for only one of the following courses: BMGT 412 or TMGT 412.

BMGT 436 Managing Entrepreneurial Ventures (3)

Prerequisite: BMGT 330 or familiarity with the business functions and factors involved with planning and managing an entrepreneurial venture. An exploration of entrepreneurial management and strategies in various competitive situations and stages of development. Topics include the development of partnerships, joint ventures, strategic alliances, and licensing. Issues regarding management, financing, marketing, production, administration, human resources, and growth of the business are analyzed. Examination covers strategies and tactics using environmental scanning, analysis, and planning and decision making (including reviewing relevant options and opportunities, forecasting demand and sales, estimating costs, and developing pro forma financial statements) by entrepreneurs. Potential business opportunities are assessed using exercises, case studies, and research related to new technologies, innovation, competition, economic and social change, governmental regulation and laws, major product and service features, organizational and human resource issues, information management, global issues, financial management, marketing, operations, and customer service. Students may receive credit for only one of the following courses: BMGT 436, BMGT 461, or MGMT 461.

BMGT 440 Financial Management (3)

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

BMGT 443 Security Analysis and Valuation (3)

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

BMGT 444 Futures Contracts and Options (3)

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

BMGT 445 Commercial Bank Management (3)

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

BMGT 446 International Finance (3)

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

BMGT 464 Organizational Behavior (3)

Prerequisites: BMGT 110 (or at least two years of business and management experience) and 364, or equivalent. An examination of research and theory on the forces underlying the way members of an organization behave. Topics include the behavior of work groups and supervisors, intergroup relations, employees' goals and attitudes, problems in communication, the circumstances of change in an organization, and the goals and design of an organization.

BMGT 465 Organization Development and Change (3)

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

BMGT 481 Public Utilities and Public Policy (3)

Examination and analysis of salient policy issues in the utilities environment and their impact on business management and strategies. Topics include the telecommunication industry, as well as energy, transportation, and financial entities in both domestic and global contexts.

BMGT 482 Business and Government (3)

(Fulfills the international perspective or civic responsibility requirement.) Prerequisites: BMGT 110 (or at least two years of business and management experience) and ECON 201 (or ECON 203), or equivalent. A study of the role of government in the modern economy and the intricate relationships between the public and private sectors. Emphasis is on the regulatory and public policy dimensions of government intervention, the promotion of business, and corporate responses to government action in the changing domestic and global marketplaces. Students may receive credit for only one of the following courses: BMGT 482 or TMGT 340.

BMGT 484 Managing Teams in Organizations (3)

Prerequisite: BMGT 364 or equivalent. An examination of how and why team development can be effective in organizations and when it is appropriate. Topics include group dynamics, stages of group development, team-building techniques, team goals and leadership, and interpersonal and individual skills to foster cohesion and effective performance. Students may receive credit for only one of the following courses: BMGT 484, BMGT 498H, or MGMT 498H.

BMGT 486A Internship in Business Management Through Co-op (3)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in business management. At least 12 hours per week must be devoted to new tasks for a total of 180 hours during the Co-op session; four new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to business management and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

BMGT 486B Internship in Business Management Through Co-op (6)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in business management. At least 20 hours per week must be devoted to new tasks for a total of 300 hours during the Co-op session; five to eight new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to business management and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship course-work through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

BMGT 487 Project Management I (3)

The first course in the two-course series BMGT 487–488. Course applications require a PC, project management and spreadsheet software, and access to the World Wide Web. Students wishing to use alternate software must contact the faculty member before the start of the course.) Prerequisite: BMGT 364 or equivalent. An introduction to project management principles, concepts, and software applications and an exploration of project management applications in introductory project situations. Project management is examined in terms of production in research firms, high-technology manufacturing and engineering firms, information systems implementations, service business projects, e-commerce projects, and consulting practices. Appropriate organizational structures, such as collegial and matrix types, are described and assessed. The practical considerations of designing a project management system are covered as well. Students may receive credit for only one of the following courses: BMGT 487, IFSM 438, or TMGT 430.

BMGT 488 Project Management II (3)

The second course in the two-course series BMGT 487–488. Course applications require a PC, project management and spreadsheet software, and access to the World Wide Web. Students wishing to use alternate software must contact the faculty member before the start of the course.) Prerequisite: BMGT 487 or equivalent. An exploration of project management applications beyond introductory projects. Project management is discussed in terms of production in research firms, high-technology manufacturing and engineering firms, information systems implementations, service business projects, e-commerce projects, and consulting practices. Appropriate organizational structures, such as collegial and matrix types, are described and assessed. The practical considerations of designing a project management system are covered as well. Students may receive credit for only one of the following courses: BMGT 488 or TMGT 430.

BMGT 491 Exploring the Future (3)

Prerequisite: BMGT 364 or equivalent. An exa mination of how to analyze and develop alternate ways of seeing the future. The interactions of population, technology, and political and economic systems, values, and leadership are investigated. Techniques futurists use—including scenario construction, trend analysis, the futures wheel, and environmental scanning—are explained. Techniques are applied in societal, professional, and personal settings. Students may receive credit for only one of the following courses: BEHS 480, BMGT 491, MGMT 398H, TMGT 401, or TMGT 480.

BMGT 495 Strategic Management (3)

(Intended as a final, capstone course to be taken in a student's last 30 semester hours.) Prerequisites: BMGT 340 and 364 and MRKT 310, or equivalent. An overview of general management and the continuous, systematic process of managerial planning, including environmental scanning and the development of plans and strategies to gain competitive advantage. Tactical and strategic management issues are highlighted by means of case studies, projects, and discussion. Access to spreadsheet software is recommended to analyze case studies and develop strategic planning information, charts, and graphs. Students may receive credit for only one of the following courses: BMGT 495, HMGT 430, MGMT 495, or TMGT 380.

BMGT 496 Business Ethics and Society (3)

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

BMGT 497 Implementing Business Strategy (3)

Prerequisites: ACCT 220 (or ACCT 301) and BMGT 364, or equivalent. A study of the implementation and management of business strategy. Focus is on linkages among and management of organizational, cross-departmental, and individual initiatives to execute strategies and achieve business objectives. Current performance is analyzed to determine how to develop process measures for customer service, growth, and profitability in setting targets for future performance. Students may receive credit for only one of the following courses: BMGT 497, BMGT 498M, or MGMT 498M.

BMGT 498O The Global Manager and Public Policy (3)

(Fulfills the civic responsibility requirement.) Prerequisite: BMGT 364 or equivalent. An examination and analysis of key public policy issues in the international arena that have an impact on the decisions of the global manager. Topics span the functional aspects of business, including global marketing, finance, management, human resource management, law, and technology transfer. Students may receive credit for only one of the following courses: BMGT 498O or MGMT 498O.

BMGT 498P International Business Law (3)

Prerequisite: BM GT 380 or equivalent. A conceptual and functional analysis and application of transnational legal principles relevant to the conduct and understanding of global business and economic transactions. Topics include the international legal environment and process; international and regional organizations; international contracts and sales; global financing and the regulation of international trade; national and international economic controls; transnational reach of criminal and economic regulations; foreign in vestments and taxation; global issues related to the environment, technology transfer, and employment; and dispute resolution.

CAPL 171 Personal Career Planning and Development (3)

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

CAPL 398A Career Planning Management (3)

A survey of strategies for managing career change or transition. Topics include identifying marketable skills and building a skill base that will free the job seeker from fluctuations in the job market. Résumé development, informational interviewing, salary negotiations, and tips for career success are also included.

CHEM 103 General Chemistry I (4)

(For students majoring or minoring in a science. Fulfills the laboratory science requirement.) Prerequisite: MATH 107, MATH 115, or equivalent. A study of the nature and composition of matter. Elements, inorganic compounds, and chemical calculations are covered. Students may receive credit for only one of the following courses: CHEM 102, CHEM 103, CHEM 105, CHEM 107, or CHEM 121.

CHEM 113 General Chemistry II (4)

(Fulfills the laboratory science requirement.) Prerequisite: CHEM 103 or CHEM 105. Further study of the nature and composition of matter. Topics include kinetics; homogeneous, heterogeneous, and ionic equilibria; oxidation/reduction reactions; electrochemistry; and chemistry of the elements. Students may receive credit for only one of the following courses: CHEM 113 or CHEM 115.

CHEM 233 Organic Chemistry I (4)

(Fulfills the laboratory science requirement.) Prerequisite: CHEM 113 or CHEM 115. Extensive, systematic analysis of the chemistry of carbon. Topics include aliphatic compounds, aromatic compounds, stereochemistry, arenes, halides, alcohols, esters, and spectroscopy. Students may receive credit for only one of the following courses: CHEM 104, CHEM 233, or CHEM 235.

CHEM 243 Organic Chemistry II (4)

(Fulfills the laboratory science requirement. A continuation of CHEM 233.) Prerequisite: CHEM 233 with a grade of C or better. Further study of organic chemistry. Emphasis is on molecular structure, substitution reactions, carbonium ions, aromaticity, synthetic processes, and macromolecules. Students may receive credit for only one of the following courses: CHEM 243 or CHEM 245.

COMM 293 Technical Report Writing (3)

Fulfills the general education requirement in communications.) Prerequisite: ENGL 101 or equivalent. An introduction to the process of technical writing. Discussion covers conducting audience and needs analyses; organizing and writing clear, precise, grammatically correct technical prose; and producing a variety of routine technical reports and correspondence. Students may receive credit for only one of the following courses: COMM 293 or ENGL 293.

COMM 300 Communication Theory (3)

(Fulfills the general education requirement in communications, but is not a writing course.) An introduction to the study of communication theory. The basic theories of human communication and their applications in the contexts of interpersonal, small-group, organizational, public, and intra/intercultural communication are analyzed. The relationship between communication theory, research, and practice is explored. Topics range from communication as a way of "knowing" to contemporary issues associated with computer-mediated communication.

COMM 319A Designing and Delivering Effective Presentations (1)

A simulation of a presentation project from conception, through creation and selection of visual aids, to delivery and evaluation. Focus is on conducting an audience analysis, developing a presentation plan, building a presentation using traditional or multimedia resources, delivering the presentation, and evaluating the results.

COMM 319C Copyright and Creativity: A Guide for Writers and Artists (1)

An introduction to the concepts and issues associated with current interpretation of intellectual property laws as they apply to the creative professions. Case studies in copyright and patent law are used to demonstrate how to protect creative work. Assignments may include a short paper and a final examination.

COMM 380 Language in Social Contexts (3)

(Fulfills the general education requirement in communications, but is not a writing course. Fulfills the historical or international perspective requirement.) Prerequisite: ENGL 101 or equivalent. An examination of the linguistic components of languages, with special emphasis on the English language, its origins, continued development, and use in speaking and writing. Categories of speech and methods of written communication are examined from the perspective of regional and social variation. Cultural, gender, and racial variations are discussed along with underlying perspectives and assumptions.

COMM 390 Writing for Managers (3)

(Fulfills the general education requirement in intensive upper-level writing.) Prerequisite: ENGL 101 or equivalent. A practicum in the kinds of writing skills that managers need for the work-place. Communication skills emphasized include planning information, developing reader-based prose, improving personal writing performance and guiding the writing of subordinates, and mastering such writing tasks as strategic plans and performance appraisals. Students may receive credit for only one of the following courses: COMM 390 or HUMN 390.

COMM 393 Technical Writing (3)

(Students for whom English is a second language should consider taking COMM 393X instead. Fulfills the general education requirement in intensive upper-level writing.) Prerequisite: ENGL 101 or equivalent. The writing of technical papers and reports. Focus is on building skills in critical thinking, research, and document design. Assignments include composing a total of 6,000 words (approximately 25 pages) in various formats (e.g., the oral presentation, the résumé, correspondence, manuals, procedures, instructions, and different types of reports, including proposal, progress, analytic, and feasibility). Students may receive credit for only one of the following courses: COMM 393, COMM 393X, ENGL 393, or ENGL 393X.

COMM 393X Technical Writing (3)

(Enrollment restricted to students for whom English is a second language. Fulfills the general education requirement in intensive upper-level writing.) Prerequisite: ENGL 101X or equivalent. The writing of technical papers and reports. Focus is on building skills in critical thinking, research, and document design. Assignments include composing a total of 6,000 words (approximately 25 pages) in various formats (e.g., the oral presentation, the résumé, correspondence, manuals, procedures, instructions, and different types of reports, including proposal, progress, analytic, and feasibility). Students may receive credit for only one of the following courses: COMM 393, COMM 393X, ENGL 393, or ENGL 393X.

COMM 394 Business Writing (3)

(Students for whom English is a second language should consider taking COMM 394X instead. Fulfills the general education requirement in intensive upper-level writing.) Prerequisite: ENGL 101 or equivalent. An introduction to professional workplace writing. Topics include context, purpose, audience, style, organization, format, technology, results, and strategies for persuasion when writing typical workplace messages. In addition to shorter assignments, a substantial formal report that incorporates data analysis and support for conclusions is required. Assignments include composing a total of 6,000 words (approximately 25 pages). Students may receive credit for only one of the following courses: COMM 394, COMM 394X, ENGL 394, or ENGL 394X.

COMM 394X Business Writing (3)

(Enrollment restricted to students for whom English is a second language. Fulfills the general education requirement in intensive upper-level writing.) Prerequisite: ENGL 101X or equivalent. An introduction to professional workplace writing. Topics include context, purpose, audience, style, organization, format, technology, results, and strategies for persuasion when writing typical workplace messages. In addition to shorter assignments, a substantial formal report that incorporates data analysis and support for conclusions is required. Assignments include composing a total of 6,000 words (approximately 25 pages). Students may receive credit for only one of the following courses: COMM 394, COMM 394X, ENGL 394, or ENGL 394X.

COMM 395 Writing in the Health Professions (3)

(Fulfills the general education requirement in communications.) Prerequisite: ENGL 101 or equivalent. An introduction to a broad spectrum of writing in the health professions: brochures, fact sheets, medical/insurance/health reports, and articles for newspapers, magazines, and scientific journals. Students may receive credit for only one of the following courses: COMM 395 or ENGL 395.

COMM 400 Communication and the Law (3)

No previous study of law required. Fulfills the general education requirement in communications, but is not a writing course.) An examination of the important legal issues that affect professional communicators. Topics include copyright, intellectual property, fair use, privacy, freedom of information, freedom of speech, and freedom of the press, as well as issues raised by the growth of the Internet, the use of digital technologies, and the creation of media content. Students may receive credit for only one of the following courses: COMM 400 or JOUR 400.

COMM 486A Internship in Communication Studies Through Co-op (3)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in communication studies. At least 12 hours per week must be devoted to new tasks for a total of 180 hours during the Co-op session; four new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to communication studies and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

COMM 486B Internship in Communication Studies Through Co-op (6)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in communication studies. At least 20 hours per week must be devoted to new tasks for a total of 300 hours during the Co-op session; five to eight new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to communication studies and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

COMM 490 Seminar in Technical Communication (3)

(Fulfills the general education requirement in communications.) Prerequisite: COMM 393, COMM 394, or equivalent experience. An exposition of current issues and methods in creating, maintaining, storing, and revising technical information. Topics include the review of textual and online resources useful to technical communicators and the requirements for a professional portfolio. Emphasis is on professional communication practices. Assignments include oral presentations. Students may receive credit only once under this course number and for only one of the following courses: COMM 490 or ENGL 489A.

COMM 491 Technical Editing (3)

(Fulfills the general education requirement in communications.) Prerequisite: ENGL 278F or equivalent. A systematic approach to methods of preparing a document for publication or other disseminations. The full range of editing levels is addressed: copyediting, substantive editing, and document design. An overview of design goals that reflect specific readers and purposes is included. Students may receive credit for only one of the following courses: COMM 491 or ENGL 489B.

COMM 492 Grant and Proposal Writing (3)

(Fulfills the general education requirement in communications.) Prerequisite: COMM 393, COMM 394, or equivalent. An advanced study of technical writing, focusing on the structures and formats of competitive proposals (transmittal letter, résumé, plan, executive summary, illustrations, tables). An actual proposal-development cycle is simulated and followed through the stages of issuance and modification of the Request for Proposal (RFP), the bidders' conference, red-team reviews, the Best and Final Offer (BAFO), and evaluation and contract award by a source board. Assignments include working in teams to prepare competitive proposals in response to an RFP from the federal government. Students may receive credit for only one of the following courses: COMM 492 or ENGL 489C.

COMM 493 Graphics/Text Integration (3)

(Fulfills the general education requirement in communications, but is not a writing course.) Recommended: Familiarity with computers and desktop publishing. An examination of the seamless integration of text and the full spectrum of graphics used in communications. Topics include techniques for creating meaningful design concepts, editing text to enhance the graphics, designing creative page layouts, and making the most of desktop publishing capabilities and tools. Hands-on experience with desktop publishing programs is provided.

COMM 494 Publishing a Newsletter (3)

(Fulfills the general education requirement in communications.) Prerequisites: ENGL 101 (or equivalent) and basic computer skills. The planning, writing, designing, and production of newsletters for various publics. Concepts are presented for targeting writing to specific audiences, improving readability, and for using typography and design effectively. Newsletter formats and the application of desktop publishing to newsletter layout and design are covered. Commercial printing is also discussed. Assignments include writing several articles and participating in a group project.

COMM 495 Seminar in Workplace Communication (3)

(Primarily for students planning careers as communication professionals, but useful for managers and other professionals. Fulfills the general education requirement in communications.) Prerequisite: A 300-level writing course. A capstone study of public relations writing. Emphasis is on enhancing advanced-level writing skills and developing flexibility in changing writing tone from piece to piece. How to produce various communications (such as press releases, feature stories, fact sheets, and executive speeches) is examined. Elements of document design are also covered.

COMM 496 Writing for the Computer Industry (3)

(Fulfills the general education requirement in communications.) Prerequisites: ENGL 101 (or equivalent) and basic computer skills. Study of and practice in the designing, writing, testing, publishing, and maintaining of effective user documentation as well as other software development documents. The assumption is made that software tools, as well as their documentation, should relate directly to user tasks. Emphasis is on the difference between writing successfully for publication on paper and for display on the computer screen.

CMIS 102 Introduction to Problem Solving and Algorithm Design (3)

(May not be applied to a major in computer and information science.) A study of techniques for finding solutions to problems through structured programming and step-wise refinement. Topics include principles of programming, the logic of constructing a computer program, and the practical aspects of integrating program modules into a cohesive whole. Algorithms are used to demonstrate programming as an approach to problem solving, and basic features of the C++ language are illustrated. Students may receive credit for only one of the following courses: CMIS 102 or CMSC 101.

CMIS 140 Introductory Programming (3)

(Not open to students who have completed CMIS 315. The first in a sequence of courses in C++. Taking CMIS 140 and 240 in consecutive semesters is recommended.) Prerequisite: CMIS 102 or equivalent knowledge. A study of structured programming using the C++ language. The discipline, methodologies, and techniques of software development are covered. Algorithms and simple data structures are developed and implemented in C++. Object-oriented concepts such as classes and encapsulation are introduced.

CMIS 160 Discrete Mathematics for Computing (3)

(Not open to students who have completed CMSC 150.) Recommended: MATH 107. An introduction to discrete mathematical techniques for solving problems in the field of computing. Basic principles from areas such as sets, relations and functions, logic, proof methods, and recursion are examined. Topics are selected on the basis of their applicability to typical problems in computer languages and systems, databases, networking, and software engineering.

CMIS 240 Data Structures and Abstraction (3)

(The second in a sequence of courses in C++. Taking CMIS 140 and 240 in consecutive semesters is recommended.) Prerequisite: CMIS 140. A study of program design and the implementation of abstract data structures in C++. Topics include programming tools, verification, debugging and testing, and data structures. Emphasis is on stacks, queues, lists, recursion, trees, sorting, and searching. C++ is the programming language used. Students may receive credit for only one of the following courses: CMIS 240 or CMIS 315.

CMIS 310 Computer Systems and Architecture (3)

(Not open to students who have completed CMSC 311.) Prerequisite: CMIS 140; CMIS 160 strongly recommended. A study of the fundamental concepts of computer architecture and factors that influence the performance of a system. Topics include data representation and the design and analysis of combinational and sequential circuits. Focus is on how basic hardware components (multiplexers, decoders, memories, arithmetic-logic units, etc.) are built. Hard-wired and micro-programmed design of control units are discussed. Concepts such as pipelining and memory hierarchy are introduced. Students may receive credit for only one of the following courses: CMIS 270, CMIS 310, CMSC 311, or IFSM 310.

CMIS 315 Programming and Application in C++ (3)

Prerequisite: A two-semester sequence in a programming language other than C++ (such as Pascal, Ada, PL/I, C, or Java) or equivalent experience. A one-semester study of programming in C++. Programming projects in C++ are included. Students may receive credit for only one of the following courses: CMIS 240 or CMIS 315.

CMIS 320 Relational Databases (3)

Prerequisite: CMIS 140 or equivalent; CMIS 310 or equivalent recommended. A study of the functions and underlying concepts of relationally organized database systems. Data models are described and their application to database systems is discussed. The entity/relationship (E/R) model and Codd's relational theory—including relational algebra, normalization and integrity constraints, and the SQL language—are emphasized. Physical design and data administration issues are addressed. Projects include hands-on work with E/R and relational models (using Oracle). Students may receive credit for only one of the following courses: CMIS 320 or IFSM 410.

CMIS 325 UNIX with Shell Programming (3)

Prerequisite: CMIS 140 or equivalent. A study of the UNIX operating system. Topics include file structures, editors, pattern-matching facilities, shell commands, and shell scripts. Shell programming is presented and practiced to interrelate system components. Projects give practical experience with the system.

CMIS 330 Software Engineering Principles and Techniques (3)

Prerequisite: Either CMIS 240, CMIS 315, or equivalent; CMIS 310 or equivalent recommended. A study of the process of software engineering from initial concept through design, development testing, and maintenance to retirement of the product. Development life-cycle models are presented. Issues in configuration management, integration and testing, software quality, quality assurance, security, fault tolerance, project economics, operations, human factors, and organizational structures are considered. Students may receive credit for only one of the following courses: CMIS 330 or CMIS 388A.

CMIS 335 Software Safety (3)

Prerequisite: CMIS 330. An examination of software safety problems (including specification errors, design/coding flaws, or lack of generic safety-critical requirements) that can contribute to or cause a system failure. The objective is to provide management and engineering guidelines to achieve a reasonable level of assurance that software will execute with an acceptable level of safety risk. Potential system hazards are analyzed as functional or generic and traced to either the software or the environment in which the software is used. Guidance on developing a process that can identify, analyze, and then prove, eliminate, or mitigate such potential system hazards according to priority is provided. Students may receive credit for only one of the following courses: CMIS 335 or CMIS 398S.

CMIS 340 Programming in Java (3)

Prerequisites: CMIS 240 (or CMIS 315) and knowledge of HTML. An examination of the features of the Java programming language. Topics include design of classes, class libraries, data structures, exception handling, threads, input and output, and applet programming. Assignments include programming in Java.

CMIS 342 Windows User Interface Programming (3)

Prerequisite: CMIS 240, CMIS 315, or equivalent. An introduction to Windows (Win32) user interface programming. The design and prototyping of user interfaces in a Windows environment are examined. Focus is on programming controls, menus, and dialog and message boxes. Students may receive credit for only one of the following courses: CMIS 342 or CMIS 398W.

CMIS 345 Object-Oriented Design and Programming (3)

Prerequisite: Either CMIS 240, CMIS 315, or equivalent. An examination of the principles, practices, and applications of programming in an object-oriented environment. Techniques and language features of object-oriented design are implemented in programming projects. Assignments include programming in an object-oriented language such as C++ or Java. Students may receive credit only once under this course number.

CMIS 370 Data Communications (3)

Prerequisite: CMIS 310 or equivalent. Investigation of the effects of communication technology on information systems. Major topics include components of communication systems, architectures and protocols of networks, security measures, regulatory issues, and the design of network systems. Issues and applications in local area networks and communication services are covered. Students may receive credit for only one of the following courses: CMIS 370, CMSC 370, or IFSM 450.

CMIS 375 Programming in Perl (3)

Prerequisite: CMIS 140 or equivalent programming experience. An introduction to the Perl scripting language. The basic features of Perl (including data and variable types, operators, statements, regular expressions, functions, and input/output) are covered. Additional topics include object-oriented programming and Common Gateway Interface (CGI) programming. Assignments include writing Perl scripts. Students may receive credit for only one of the following courses: CMIS 375 or CMIS 398P.

CMIS 390 UNIX System Administration (3)

Prerequisite: CMIS 325. An in-depth examination of UNIX internals, including loading, configuring, and maintaining UNIX operating systems. Both theory and hands-on experience are provided in boot-up and shutdown processes; file system creation and structure; system maintenance and security, especially in the network file system and network information system; and UNIX Internet provider network configuration and maintenance. The Red Hat Linux operating system is used for all lab work. Students may receive credit for only one of the following courses: CMIS 390 or CMIS 398U.

CMIS 398F Database Forms (3)

Prerequisites: CMIS 320 (or IFSM 410) and an understanding of relational database terminology and SQL usage. A comprehensive study of the design and development of graphical user interface forms for modern relational databases in the client/server environment. Focus is on developing a hierarchy of form applications using both Microsoft Access and Oracle. Topics include the construction of simple forms using drop-and-drag components and advanced features of vendor form-building products. Some Visual Basic and PL/SQL programming is used to provide robust functionality to the forms. Accurate display and processing of data and user friendliness are stressed.

CMIS 415 Advanced UNIX and C (3)

Prerequisites: CMIS 240 (or CMIS 315) and 325; CMIS 310 or equivalent recommended. An investigation of the interaction between the UNIX operating system and the C programming language. The features of UNIX that support C, including library and system calls, UNIX utilities, debuggers, graphics, and file structure, are presented. Programming projects in C that implement UNIX command features are assigned.

CMIS 420 Advanced Relational Databases (3)

Prerequisite: CMIS 320 or equivalent. A study of advanced logical and physical design features and techniques of relational databases appropriate to the advanced end user, database designer, or database administrator. Topics include object-relational concepts, data modeling, challenge areas, physical design in relation to performance, and relational algebra as a basis of optimizer strategies. Future trends, advanced concurrency control mechanisms, and maintenance issues such as schema restructuring are addressed. Projects include hands-on work (using Oracle) in designing and implementing a small database, creating triggers, loading through forms and utility, querying through interactive and embedded Structured Query Language (SQL), restructuring schema, and analyzing performance. Students may receive credit for only one of the following courses: CMIS 420, IFSM 411, or IFSM 498I.

CMIS 435 Computer Networking (3)

Prerequisite: CMIS 370 or equivalent. An overview of communications topics such as signaling conventions, encoding schemes, and error detection and correction. Emphasis is on routing protocols for messages within various kinds of networks, as well as on methods that network entities use to learn the status of the entire network. Students may receive credit for only one of the following courses: CMIS 435 or CMSC 440.

CMIS 440 Advanced Programming in Java (3)

Prerequisite: CMIS 340. An exploration of advanced Java applications. Topics include networking, client/server issues, Java database connectivity, remote method invocation, and Enterprise JavaBeans. Projects include group work and an in-depth case study of a Java-based system. Students may receive credit for only one of the following courses: CMIS 440 or CMIS 498A.

CMIS 442 Windows Systems Programming (3)

Prerequisites: CMIS 240 and 310, or equivalent. A study of the Win32 application programming interface (API) used to access underlying system-level objects such as files, memory, processes, threads, and the registry. In-depth descriptions and examples of the necessary API calls are presented. Programming projects implement Windows console applications.

CMIS 445 Distributed Systems (3)

Prerequisites: CMIS 240 and 310; CMIS 325 recommended. An exploration of protocols and methods for allocating to more than one processor various parts of the work associated with a single task. Emphasis is on environments such as array processing, parallel processing and multiprocessor systems, and communication among cooperating processes. Topics include reliability, security, and protection, as well as how these issues affect the development of programs and systems. Standards for object-oriented programming (Common Object Request Broker Architecture) are discussed. Projects include programming. Students may receive credit for only one of the following courses: CMIS 445 or CMSC 445.

CMIS 455 Requirements Development (3)

Prerequisite: CMIS 330. A study of concepts and techniques for planning and developing high-quality software products. Fundamentals of specification (including formal models and representations, documents, and standards) are examined. Methods of specifying and developing requirements for generating software are discussed. Projects using these techniques are included. Students may receive credit only once under this course number.

CMIS 460 Software Design and Development (3)

Prerequisite: CMIS 330 or equivalent. An in-depth treatment of the concepts and techniques for designing and developing software for large projects. Design strategies, principles, methodologies, and paradigms are discussed, as are evaluation and representation. Architectural models and idioms, development tools and environments, implementation guidelines and documentation, and organization of design and development functions are included. Issues of program quality, program correctness, and system integration are addressed. Project work incorporates principles and techniques of software design and development.

CMIS 465 Software Verification and Validation (3)

Prerequisite: CMIS 330 or equivalent. A study of tools, methods, and current practices for assessing the quality and correctness of software. Topics include the roles of testing and formal verification, fundamentals and formal models of program verification, planning and documentation for quality assurance, methods of performing technical reviews, strategies of system testing and integration planning, and principles and practices used in conducting tests.

CMIS 475 Advanced Programming in Perl (3)

Prerequisite: CMIS 375 or equivalent. A study of advanced Perl features such as packages, modules, classes, and objects. Focus is on creating a complete Perl database application. A Web server is used to connect front-end technology such as HTML forms with back-end server-based Perl programming for functional Web-based client/server applications. Common Gateway Interface (CGI) programming is explored to provide database connectivity for use in the client/server model. Students may receive credit for only one of the following courses: CMIS 475 or CMIS 498P.

CMIS 486A Internship in Computer and Information Science Through Co-op (3)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in computer and information science. At least 12 hours per week must be devoted to new tasks for a total of 180 hours during the Co-op session; four new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to computer and information science and that continues to advance application of academic theory in the work-place. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

CMIS 486B Internship in Computer and Information Science Through Co-op (6)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in computer and information science. At least 20 hours per week must be devoted to new tasks for a total of 300 hours during the Co-op session; five to eight new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to computer and information science and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

CMIS 490 Advanced UNIX System Administration (3)

Prerequisite: CMIS 390. A continuation of the study of UNIX system administration. Topics such as printer administration, mail server configuration and maintenance, storage and backup strategies, domain name service (DNS), kernel configurations and UNIX Internet server design and setup are explained in detail, covering both theory and implementation. Advanced topics include network file servers (NFS), network information service (NIS), UNIX Internet protocols, user and system security, and in-depth troubleshooting techniques. Automation of administration tasks and the writing of shell scripts to augment the boot process are also discussed. Students may receive credit for only one of the following courses: CMIS 490 or   CMIS 498U.

CMIS 498 Special Topics in Computer and Information Science (3)

Prerequisites: Vary according to topic. A seminar on topics in computer and information science. May be repeated to a maximum of 6 credits when topics differ.

CMIS 498B Web Database Development (3)

Prerequisites: CMIS 320, a good knowledge of relational database design and SQL, and programming language experience; CMIS 340 recommended. An exploration of an assortment of current Web technologies and programming language options used to interface a relational database to a Web server. Technologies such as CGI/Perl, Active Server Pages, and Java are utilized in the lab. The three-tiered architecture is studied in depth via a number of hands-on activities and projects.

CMIT 261O Introduction to Oracle (3)

(Designed to help students prepare to take Oracle Exam #1Z0-007.) An introduction to Oracle and Structured Query Language (SQL.) The syntax and function of the American National Standards Institute's standard SQL are examined. SQL's data definition language is used to create tables, including constraints, and SQL's data manipulation language is used to insert, update, and delete data. Emphasis is on learning queries, ranging from the simple to the complex. Additional database objects (such as views, sequences, synonyms, aliases, and indexes) and SQL built-in functions are explored. Other topics include using the Oracle SQL command editor and the local systems editor and creating simple reports with SQL Loader and SQL Plus. Hands-on exercises are included.

CMIT 265M Networking Essentials (2)

(Designed to prepare students to take the Network+ Certification Exam from Comp TIA.) An introduction to networking technologies for individual workstations, local area networks, wide area networks, and the Internet, with emphasis on security and protocols. A general knowledge of networking, including Microsoft operating systems (such as Windows 2000), is provided. Students may receive credit only once under this course number.

CMIT 360N Novell NetWare Administrator (3)

Prerequisite: Familiarity with DOS, microcomputer hardware architecture, and basic networking concepts. An introduction to the features of a network. Local area network (LAN) configuration, directory structure, drive mapping, and network security are emphasized. Network administration responsibilities are discussed. Students may receive credit for only one of the following courses: CMIT 360N or CAPP 390.

CMIT 366M Windows 2000 Professional (3)

(Designed to help prepare students to take Installing, Configuring, and Administering Microsoft Windows 2000 Professional Examination 70-210.) Prerequisite: CMIT 265M with a grade of C or better or consent of the teacher. An introduction to Windows 2000 Professional. Focus is on developing the skills necessary to install and configure Windows 2000 Professional as a desktop operating system in a generic operating environment. Topics include review of operating systems, administration, security, transmission control protocol/Internet protocol, and use of Windows 2000 Professional as a stand-alone distributed file sys-tem or as part of a work group or a domain. Hands-on exercises are included.

CMIT 367M Windows 2000 Server (3)

(Designed to help prepare students to take Installing, Configuring, and Administering Microsoft Windows 2000 Server Examination 70-215.) Prerequisite: CMIT 265M with a grade of C or better or consent of the teacher. A study of Windows 2000 Server installation and administration. Focus is on developing the skills necessary to install and configure Windows 2000 Server. Topics include support, connectivity, creation and management of user accounts, management of access to resources, the NT file system, and configuration and management of disks. Hands-on exercises are included.

CMIT 376M Windows 2000 Network Infrastructure (3)

(Designed to help prepare students to take Implementing and Administering a Microsoft Windows 2000 Network Infrastructure Examination 70-216.) Prerequisite: CMIT 367M or equivalent. The development of the knowledge and skills necessary to install, configure, manage, and support the Windows 2000 network infrastructure. Topics include automating Internet protocol address assignment using dynamic host configuration protocol, implementing name resolution using domain name service and Windows Internet naming service, setting up and supporting remote access to a network, configuring network security using public key infrastructure, integrating network services, and deploying Windows 2000 Professional using remote installation services. Hands-on exercises are included.

CMIT 377M Windows 2000 Directory Services Infrastructure (3)

(Designed to help prepare students to take Implementing and Administering a Microsoft Windows 2000 Directory Services Infrastructure Examination 70-217.) Prerequisite: CMIT 367M or equivalent. The development of the knowledge and skills necessary to install, configure, manage, and support the Windows 2000 Active Directory service. Topics include understanding the logical and physical structure of Active Directory, configuring the domain name service to support Active Directory, creating and administering user accounts and group resources, controlling Active Directory objects, implementing and using group policy, managing replication of Active Directory, and maintaining and restoring the Active Directory database. Hands-on exercises are included.

CMIT 381O Oracle Database Administration (3)

(Designed to help students prepare to take the Oracle 9i Certification Exam 1Z0-031.) Prerequisite: CMIT 261O or equivalent. A foundation in basic database administration tasks. Focus is on gaining a conceptual understanding of the Oracle 9i database architecture and how the architectural structures work and interact with one another. Topics include how to create an operational database and properly manage the various structures in an effective and efficient manner. Hands-on exercises include configuring network parameters so that database clients and tools can communicate with an Oracle database server. Backup and recovery techniques are introduced, and various backup, failure, and restoration and recovery scenarios are examined.

CMIT 385M Internetworking TCP/IP on NT (2)

(Designed to help prepare students to take Internetworking Microsoft Transmission Control Protocol/Internet Protocol on Microsoft Windows NT 4.0 Examination 70-059.) Prerequisite: CMIT 375M or equivalent. A study of the setup, use, and support of Transmission Control Protocol/Internet Protocol (TCP/IP) on Microsoft Windows NT operating systems. Emphasis is on protocols, configuration management, routers, and practical troubleshooting.

CMIT 392M Designing and Implementing Databases with SQL Server (3)

(Designed to help prepare students to take Designing and Implementing Databases with Microsoft SQL Server Examination.) Prerequisite: An understanding of relational database concepts. The development of the knowledge and skills necessary to design and implement databases with SQL Server. Topics include developing a logical data model, deriving the physical design, devising data services, creating and executing stored procedures, and constructing and maintaining a physical database. Hands-on exercises are included.

CMIT 394M Data Warehousing Using SQL Server (3)

(Designed to help prepare students to take Designing and Implementing Data Warehouses with Microsoft SQL Server Examination.) Prerequisite: An understanding of relational database concepts A study of design and implementation of data warehouse solutions using SQL Server. Topics include defining the technical architecture for a data warehouse solution, developing the logical design, deriving the physical design, object linking and embedding, open database connectivity, ActiveX Data Objects, file management, data integrity, online analytical processing, monitoring and optimizing performance, and backup and disaster recovery. Hands-on exercises are included.

CMIT 476M Designing a Windows 2000 Network Infrastructure (2)

(Designed to help prepare students to take Designing a Microsoft Windows 2000 Network Infrastructure Examination 70-221.) Prerequisite: CMIT 367M; CMIT 376M recommended. The development of the knowledge and skills necessary to design a Windows 2000 network infrastructure. Topics include building a networking services foundation, designing internet and extranet connectivity solutions, and creating an integrated network services infrastructure design and network service design to support applications.

CMIT 477M Designing a Windows 2000 Directory Services Infrastructure (2)

(Designed to help prepare students to take Designing a Microsoft Windows 2000 Directory Services Infrastructure Examination 70-219.) Prerequisite: CMIT 367M; CMIT 377M recommended. A study of Active Directory design issues. Topics include naming strategy, delegation of administrative authority, schema policy, group policy support, infrastructure, and domain and multiple domain structure.

CMIT 480M Designing Security for a Windows 2000 Network (3)

(Designed to help prepare students to take Designing Security for a Microsoft Windows 2000 Network Examination 70-220.) Prerequisite: CMIT 367M. The development of the knowledge and skills necessary to design a security framework for small, medium, and enterprise networks using Windows 2000 technologies. Topics include providing secure access to local network users, partners, remote users, and remote offices and between private and public networks.

CMIT 486A Internship in Computer Information Technology Through Co-op (3)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in computer information technology. At least 12 hours per week must be devoted to new tasks for a total of 180 hours during the Co-op session; four new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to computer information technology and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

CMIT 486B Internship in Computer Information Technology Through Co-op (6)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in computer information technology. At least 20 hours per week must be devoted to new tasks for a total of 300 hours during the Co-op session; five to eight new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to computer information technology and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

CMIT 490M Designing an Upgrade Strategy: NT to Windows 2000 (1)

(Designed to help prepare students to take Upgrading from Microsoft Windows NT 4.0 to Microsoft Windows 2000 Examination 70-222.) Prerequisite: CMIT 367M. The development of the skills and knowledge necessary to select and design a migration strategy from NT 4.0 to Windows 2000 Active Directory service. Topics include developing a domain upgrade strategy, restructuring domains, planning to deploy a migration strategy, and minimizing the impact on operations during an upgrade.

CMIT 499 Special Topics in Computer Information Technology (1–5)

An inquiry into special topics in computer information technology that reflect the changing field. May be repeated when topics differ.

CMIT 499B Administering SQL Server (3)

(Designed to help prepare students to take System Administration for Microsoft SQL Server Examination.) Prerequisite: An understanding of relational database concepts. The development of the knowledge and skills necessary to install, configure, and administer a database solution with the client/server database management system Microsoft SQL Server 2000. Hands-on exercises are included.

CMIT 499D Interconnecting Cisco Devices (3)

Presentation of and practice in the concepts and commands required to configure Cisco switches and routers in multiprotocol internetworks. Students may receive credit for only one of the following courses: CAPP 498E or CMIT 499D.

CMIT 499X Windows XP Professional (3)

(Designed to help prepare students to take Microsoft Certification Exam 70-270.) Prerequisite: CMIT 265M with a grade of C or better or consent of the teacher. An introduction to Windows XP Professional. Focus is on developing the skills necessary to install, configure, and support Windows XP Professional as a desktop operating system in a generic operating environment.

CMSC 101 Introductory Computer Science (3)

A study of fundamental programming concepts and constructs within an abstract (language-independent) framework. Topics include basic and structured data types, variables, and the structure of expressions. Pseudocode is used to explore the syntax and semantics of structured programming statements, functions, and the use of parameters. The history of computing and computing ethics are also discussed. Students may receive credit for only one of the following courses: CMIS 102 or CMSC 101.

CMSC 130 Computer Science I (3)

Prerequisite: CMIS 102 or equivalent experience; CMSC 150 strongly recommended. A study of the fundamental concepts that underlie object-oriented programming. Topics include primitive and structured data types, streams, classes and objects, inheritance, polymorphism, exception handling, graphical interfaces, and recursion. Programming projects in Java are included.

CMSC 150 Introduction to Discrete Structures (3)

Prerequisite or corequisite: MATH 140. A survey of fundamental mathematical concepts involved in computer science. Functions, relations, finite and infinite sets, and propositional logic are explored. Proof techniques presented are those used for modeling and solving problems in computer science. Combinations, permutations, graphs, and trees are introduced, along with selected applications. Students may receive credit for only one of the following courses: CMSC 150 or CMSC 250.

CMSC 230 Computer Science II (3)

Prerequisites: CMSC 130 and 150. A study of the fundamental data structures in computer science. Topics include linked lists, stacks, queues, arrays, dictionaries, vectors, and trees. Algorithms that perform sorting and searching are discussed and analyzed. Programming projects in Java are included.

CMSC 305 Programming and Applications in Java (3)

(For students with previous programming experience.) Prerequisite: CMIS 240 or equivalent. A one-semester study of Java syntax. Programming projects in Java are included. Students who completed CMSC 230 after fall 1998 may receive credit for only one of the following courses: CMSC 230 or CMSC 305.

CMSC 311 Computer Organization (3)

(Required for students majoring in computer science.) Prerequisite: A two-course sequence in a programming language. A study of the organization of memory, input/output, and central processing units, including instruction sets, register transfer operations, control microprogramming, data representation, and arithmetic algorithms. Assembly language and digital logic circuit design are introduced. Students may receive credit for only one of the following courses: CMIS 270, CMIS 310, CMSC 311, or IFSM 310.

CMSC 330 Advanced Programming Languages (3)

Prerequisite: CMSC 230, CMSC 305, or equivalent. A study of imperative and declarative programming languages. C++ is presented as the prime imperative language and compared with Ada and Java. LISP and PROLOG are introduced as declarative languages. Formal syntax and semantics are discussed.

CMSC 335 Object-Oriented and Concurrent Programming (3)

Prerequisite: CMSC 230, CMSC 305, or equivalent. A study of object-oriented and concurrent programming using features of Java. Concepts of object-oriented programming (such as composition, classification, and polymorphism) are explored. The principles of concurrent programming (such as task synchronization, race conditions, deadlock, and threads) are studied. Programming projects are implemented in Java. Students may receive credit for only one of the following courses: CMSC 300 or CMSC 335.

CMSC 411 Computer System Architecture (3)

Prerequisite: CMSC 311 or equivalent. A discussion of input/output processors and techniques, covering their relation to intrasystem communication, including buses and caches. Also covered are addressing and memory hierarchies, microprogramming, parallelism, and pipelining.

CMSC 412 Operating Systems (3)

Prerequisite: CMSC 311 or equivalent. An introduction to batch systems, spooling systems, and third-generation multiprogramming systems. The parts of an operating system are described in terms of their function, structure, and implementation. Basic policies for allocating resources are also discussed. Programming projects may be included.

CMSC 415 UML and Design Patterns (3)

(Designed for software engineers, systems analysts, designers, and programmers.) Prerequisite: CMSC 335. A comprehensive study of fundamental concepts of object-oriented analysis and design focusing on Unified Modeling Language (UML) and its application to the system architectural design using selected patterns as guiding models. Activities include creation of detailed object models, in conjunction with UML views and design from system requirements, using use-case models and proven patterns to refine analysis and design models. Emphasis is on expansion of the analysis into a design that is ready for implementation, with artifacts that are testable, and that exhibits scalability to easily evolve in response to changes in a given problem domain.

CMSC 420 Advanced Data Structures and Analysis (3)

Prerequisites: CMSC 230 and 330, or equivalent. A study of data structures (including lists and trees) in terms of their descriptions, properties, and storage allocations. Algorithms are used to manipulate structures. Applications are drawn from the areas of information retrieval, symbolic manipulation, and operating systems.

CMSC 421 Introduction to Artificial Intelligence (3)

Prerequisites: CMSC 330 and 335, or equivalent. An exploration of various areas of artificial intelligence, including search, inference, knowledge representation, learning, vision, natural languages, expert systems, and robotics. Programming languages (e.g., LISP, PROLOG), programming techniques (e.g., pattern matching, discrimination networks), and control structures (e.g., agendas, data dependencies) are implemented in suitable applications.

CMSC 424 Database Design (3)

Prerequisite: CMSC 335 or equivalent. A study of the applicability of the database approach as a mechanism for modeling the real world. The three popular data models (hierarchical, relational, and network) are reviewed. Permissible structures, integrity constraints, storage strategies, and query facilities are compared. The theoretical foundations of the logic used in designing a database are presented.

CMSC 430 Theory of Language Translation (3)

Prerequisites: CMSC 330 and programming experience in C or C++, or equivalent. An examination of the formal translation of programming languages, syntax, and semantics. Highlights include evaluation of finite-state grammars and recognizers; context-free parsing techniques such as recursive descent, precedence, LL(K), LR(K), and SLR(K); and improvement and generation of machine-independent code and syntax-directed translation schema.

CMSC 450 Logic for Computer Science (3)

Prerequisites: CMSC 150 and MATH 241, or equivalent. Elementary development of propositional logic (including the resolution method) and first-order logic (including Hebrand's unsatisfiability theorem). Discussion covers the concepts of truth and interpretation; validity, provability, and soundness; completeness and incompleteness; and decidability and semidecidability. Students may receive credit for only one of the following courses: CMSC 450, MATH 444, MATH 445, or MATH 450.

CMSC 451 Design and Analysis of Computer Algorithms (3)

Prerequisites: CMSC 150 and 230, or equivalent. Presentation of fundamental techniques for designing and analyzing computer algorithms. Basic methods include divide-and-conquer techniques, search and traversal techniques, dynamic programming, greedy methods, and induction.

CMSC 452 Elementary Theory of Computing (3)

Prerequisite: CMSC 311 or equivalent. Analysis of alternative theoretical models of computation and types of automata. Their relationship to formal grammars and languages is specified.

CMSC 475 Combinatorics and Graph Theory (3)

Prerequisites: MATH 240 and 241. An exploration of general enumeration methods, difference equations, and generating functions. Focus is on elements of graph theory, matrix representations of graphs, and applications of graph theory to transport networks. Matching theory and graphical algorithms are also considered. Students may receive credit for only one of the following courses: CMSC 475 or MATH 475.

CMSC 480 Advanced Programming in Java (3)

Prerequisite: CMSC 335 or equivalent object-oriented and Java programming experience. An examination of the principles, techniques, and applications of programming in Java in the Internet environment. Topics include threads, packages, interfaces, and exceptions. Java applets are created and incorporated into Web pages. Visual development tools are reviewed. Students may receive credit for only one of the following courses: CMIS 498J, CMSC 480, or CMSC 498J.

CMSC 486A Internship in Computer Science Through Co-op (3)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in computer science. At least 12 hours per week must be devoted to new tasks for a total of 180 hours during the Co-op session; four new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to computer science and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

CMSC 486B Internship in Computer Science Through Co-op (6)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in computer science. At least 20 hours per week must be devoted to new tasks for a total of 300 hours during the Co-op session; five to eight new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to computer science and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship course-work through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

CMSC 498 Special Topics in Computer Science (1-3)

Prerequisites: Vary according to topic. A seminar on topics in computer science. May be repeated to a maximum of 6 credits when topics differ.

CMSC 498D Topics in Software Systems Engineering (3)

Prerequisites: CMSC 330 and 335, or equivalent. An exploration of software engineering from both a systems engineering and a managerial point of view. Coverage of issues in software systems engineering includes definition of requirements, specification, design, verification and validation, and estimation of costs of software. Topics in management include planning, organizing, staffing, directing, and controlling, as those activities apply to the development of software systems.

CMSC 498G Image Processing and Computer Graphics (3)

Prerequisites: MATH 240 and CMIS 345 (or CMSC 330). An investigation of concepts and techniques of image processing and computer graphics. Input/output devices, display programs, and statistical attributes of images are reviewed. Transformations, thresholding, clipping, and edge detection are implemented. Convolution and filters, Fourier and wavelet transforms, and volume rendering and animation of three-dimensional graphical objects are introduced. Presentation covers methods to scan conversion of lines and polygons and to apply two- and three-dimensional geometric and projective transformations. Algorithms for hidden-surface removal, reflection and lighting, and representation of general curves and surface are included.

CMST 100A Introduction to Microcomputers: Hardware and Software (1)

Graded on a satisfactory/D/P/fail basis only. An introduction to the hardware and software of computer systems and the terminology and functional parts of a computer. Extensive explanations of, as well as practice with, the operating system and utilities of a microcomputer are provided. Students may receive credit for only one of the following courses: CAPP 100A or CMST 100A.

CMST 100B Introduction to Microcomputers: Word Processing (1)

Graded on a satisfactory/D/P/fail basis only.) Prerequisite: CMST 100A or equivalent. An introduction to word processing as one of the many applications of microcomputers. The characteristics of word processing are analyzed. Topics include typical features, as well as costs and trends of available software. Hands-on practice with typical word-processing software is provided. Students may receive credit for only one of the following courses: CAPP 100B,   CAPP 103, CMST 100B, or CMST 103.

CMST 100D Introduction to Microcomputers: Presentation Graphics (1)

Graded on a satisfactory/D/P/fail basis only.) Prerequisite: CMST 100A or equivalent. An introduction to the principles of presentation graphics. Topics include text and analytical charts, free-form graphics and clip art, and animation and slide shows. Hands-on practice with typical presentation graphics software is provided. Students may receive credit for only one of the following courses: CAPP 100D or CMST 100D.

CMST 100E Introduction to Microcomputers: Networks and Communication (1)

Graded on a satisfactory/D/P/fail basis only.) Prerequisite: CMST 100A or equivalent. An introduction to the use of computer networks to interconnect microcomputers and to the current hardware, software, and communication standards and protocols that make networking possible. Hands-on practice with typical communications software and network configuration is provided. Students may receive credit for only one of the following courses: CAPP 100E or   CMST 100E.

CMST 100F Introduction to Microcomputers: Databases (1)

Graded on a satisfactory/D/P/fail basis only.) Prerequisite: CMST 100A or equivalent. An introduction to database systems, including terminology and principles of database management systems. Focus is on how best to organize, manage, and access stored data, how to protect databases, and how to extract useful information. Hands-on practice with typical database software is provided. Students may receive credit for only one of the following courses: CAPP 100F, CAPP 103, CMST 100F, or CMST 103.

CMST 100G Introduction to Microcomputers: Spreadsheets (1)

Graded on a satisfactory/D/P/fail basis only.) Prerequisite: CMST 100A or equivalent. An introduction to the use of electronic worksheets to analyze numerical data, including basic terminology, formats, and other applications. Hands-on practice with typical spreadsheet software is provided. Students may receive credit for only one of the following courses: CAPP 100G, CAPP 103, CMST 100G, or CMST 103.

CMST 100J Introduction to Microcomputers: Security (1)

Graded on a satisfactory/D/P/fail basis only.)

Prerequisite: CMST 100A or equivalent. An introduction to computer security. Both physical and software security and the types of computer viruses that afflict modern information systems are examined. Discussion covers the use of the operating system and antiviral software tools to protect, detect, and recover from viral attacks. Hands-on practice in applying these principles is provided. Students may receive credit for only one of the following courses: CAPP 100J or CMST 100J.

CMST 100K Introduction to Microcomputers: Accessing Information via the Internet (1)

Graded on a satisfactory/D/P/fail basis only.) Prerequisite: CMST 100A or equivalent. An introduction to the Internet and the wealth of information it contains. The focus is on practical and efficient means for gaining access to information through the use of browsers on a home computer system and search engines on the Internet. Mechanisms by which the Internet operates, security issues on the Internet, intellectual property right issues, and the ethics of the Internet are also discussed, along with other current topics involving the interface between the Internet and the citizen. Students who have already earned credit for CAPP 385, CAPP 386, CMST 385, or CMST 386 cannot earn credit for CMST 100K. Students may receive credit for only one of the following courses: CAPP 100K, CAPP 101C, or CMST 100K.

CMST 100L Introduction to Microcomputers: Web Page Design (1)

Graded on a satisfactory/D/P/fail basis only.) Prerequisite: CMST 100A or equivalent. An introduction to Web page design and site management. The characteristics of Web page design and navigation structures are analyzed, and typical features of current commercial software are presented. Hands-on practice with typical Web page design and site management software is provided. Students may receive credit for only one of the following courses: CAPP 100L or CMST 100L.

CMST 100M Introduction to Microcomputers: HTML (1)

Graded on a satisfactory/D/P/fail basis only.) Prerequisite: CMST 100A or equivalent. An introduction to the use of HTML to create basic and advanced World Wide Web–enabled documents. Topics include creating and editing Web pages, placing HTML documents on the Web, designing Web pages with tables, and using frames in Web pages. Assignments include designing and implementing Web pages using HTML. Students may receive credit for only one of the following courses: CAPP 100M, CAPP 101H, or CMST 100M.

CMST 100N Introduction to Microcomputers: Desktop Operating Systems (1)

Graded on a satisfactory/D/P/fail basis only.) Prerequisite: CM ST 100A or equivalent. An introduction to the use and configuration of graphical user interfaces, focusing on Microsoft Windows operating systems. Topics include working with Windows programs, managing files and folders using Windows Explorer, customizing Windows using the Control Panel, using Internet services in Windows, and managing shared files and resources. Students may receive credit for only one of the following courses: CAPP 100N, CAPP 101M, CAPP 101T, or CMST 100N.

CMST 100P Introduction to Microcomputers: Using UNIX/Linux (1)

Graded on a satisfactory/D/P/fail basis only. Prerequisite: CMST 100A or equivalent. An introduction to configuring and using UNIX and Linux on microcomputers and work-stations. Hands-on exercises in configuring the desktop environment of a Linux operating system are included. UNIX commands, file management, the X-Window graphical user interface, and window managers such as Gnome and KDE are covered. Students may receive credit for only one of the following courses: CAPP 100P or CMST 100P.

CMST 100Q Introduction to Microcomputers: Personal Digital Assistants (1)

Graded on a satisfactory/D/P/fail basis only.) An introduction to personal digital assistants (PDAs). Focus is on the two major operating systems for PDAs: Palm Pilot and Pocket PC. Topics include understanding the functions of PDAs, comparing the two operating systems, using built-in and typical third-party applications, and connecting and exchanging information with desktop computers. Students are encouraged to bring their own PDAs to class. Students may receive credit for only one of the following courses: CMST 100Q or CMST 198Q.

CMST 103 Introduction to Microcomputer Software (3)

An introduction to microcomputers and application software. Hands-on experience with software packages (including word processing, spreadsheets, and databases) is provided. Focus is on concepts, features, and business applications of those facilities. Students who have received credit for CMST 100B, CMST 100F, or CMST 100G may not receive credit for CMST 103. Students may receive credit for only one of the following courses: CAPP 103 or CMST 103.

CMST 300 Concepts in Computing (3)

An introduction to the basic principles and techniques of computing. Discussion deals with the effects of computerization on individuals, government, business, and industry; social and ethical issues; concepts of problem solving; and computer hardware. Students may receive credit for only one of the following courses: CAPP 101, CAPP 300, CMST 300, IFSM 201, or TMGT 201.

CMST 303 Advanced Features of Microcomputer Application Software (3)

Prerequisite: CMST 103 or equivalent. A presentation of application software packages that includes advanced features of operating systems, spreadsheets, database management, and electronic information exchange for business applications. Presentation software is reviewed, and hands-on experience with the software is provided. Students may receive credit for only one of the following courses: CAPP 303 or CMST 303.

CMST 305 Introduction to Visual Basic Programming (3)

Prerequisite: CMIS 102 or equivalent. A structured approach to developing programs using the Visual Basic language with Windows. Hands-on experience in implementing features of this event-driven, visual interface for program design is provided. Programming projects in Visual Basic are included. Students may receive credit for only one of the following courses: CAPP 305 or CMST 305.

CMST 310 Desktop Publishing (3)

Prerequisite: Basic familiarity with personal computers and experience with a word-processing or text-editing program. An introduction to concepts and methods of desktop publishing. Highlights include the design and layout of a publication, the choice of computer hardware and software, the integration of computer graphics, the drafting and editing of a publication, and methods of interfacing with high-level printing equipment to produce a final document. Students may receive credit for only one of the following courses: CAPP 310, CAPP 398B, or CMST 310.

CMST 311 Advanced Desktop Publishing (3)

Prerequisite: CMST 310 or equivalent. A project-oriented study of the concepts and methods of desktop publishing. Techniques for using color in page layouts are implemented. Features essential to multimedia presentations are integrated with techniques for capturing and editing photos to produce business publications. Students may receive credit for only one of the following courses: CAPP 311 or CMST 311.

CMST 340 Computer Applications in Management (3)

Prerequisite: Either CMST 300, IFSM 201, or equivalent. An overview of computer-based information-system concepts and operations and how these capabilities are applied by management to improve the work processes of business, government, and academic organizations. Consideration is also given to management planning at the strategic, tactical, and operational levels necessary to effect continuous improvements. The interchange of electronic information and the application of various computing tools such as spreadsheet programs are introduced. Students may receive credit for only one of the following courses: CAPP 340, CMIS 350, or CMST 340.

CMST 385 Internet: A Practical Guide (3)

Prerequisite: Either CMST 300, IFSM 201, or equivalent. An introduction to the Internet and the World Wide Web. Topics include basic principles and protocols of the Internet; configuration and use of graphical Web browsers; application programs such as Telnet, FTP, e-mail, and Net news readers; finding and retrieving information on the World Wide Web; and the use of portals and search engines. Discussion covers Internet security measures as well as social, ethical, and legal issues related to the growth of the Internet. HTML and Web page design are introduced. Assignments include designing and publishing a Web page. Students may receive credit for only one of the following courses: CAPP 385 or CMST 385.

CMST 386 Internet: An Advanced Guide (3)

Prerequisite: CMST 385 or equivalent. A study of advanced applications for the Internet and the World Wide Web. Focus is on Web page design, including features such as frames, animation, and cascading style sheets. Dynamic HTML and JavaScript are introduced. Assignments include publishing a Web page. Students may receive credit for only one of the following courses: CAPP 386 or CMST 386.

CMST 398J Programming with JavaScript (3)

Prerequisites: CMIS 102 and CMST 386, or equivalent. A structured approach to programming with JavaScript to build dynamic, interactive Web pages. Topics include adaptive forms, dynamic HTML, event modeling, cross-browser compatibility, cookies, and security issues. Programming projects are included.

CMST 415 Advanced Visual Basic Programming (3)

Prerequisite: CMST 305 or equivalent. An investigation of advanced Visual Basic programming concepts, tools, and methods. Topics include object linking and embedding (OLE), dynamic data exchange (DDE), and data access objects (DAO) for interface with other applications and databases. Emphasis is on application design and development. Practical opportunities to design and develop complete applications integrating multiple features of the Visual Basic programming language are provided. Students may receive credit for only one of the following courses: CAPP 498B or CMST 415.

CMST 430 Web Site Management (3)

Prerequisite: CMST 386 or equivalent. An in-depth survey of Web site maintenance for small businesses. Topics include Web tools, including scripting, servers, editors, image manipulation tools, utilities, and traffic analysis. Focus is on Internet security and e-commerce issues. Students may receive credit for only one of the following courses: CAPP 498C or CMST 430.

CMST 450 Web Design Methodology and Technology (3)

Prerequisite: CMST 386 or equivalent. An in-depth survey of the design and delivery of professional Web content. Focus is on using comprehensive tools and the latest technology to enhance the Web presence of a small business. Topics include multimedia and interactivity. Online commerce and Internet security issues are discussed. Assignments include a comprehensive project. Students may receive credit for only one of the following courses: CAPP 498D or CMST 450.

CMST 486A Internship in Computer Studies Through Co-op (3)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in computer studies. At least 12 hours per week must be devoted to new tasks for a total of 180 hours during the Co-op session; four new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to computer studies and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

CMST 486B Internship in Computer Studies Through Co-op (6)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in computer studies. At least 20 hours per week must be devoted to new tasks for a total of 300 hours during the Co-op session; five to eight new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to computer studies and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship course-work through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

CMST 498F Web Application Development Using ColdFusion (3)

Prerequisites: CMST 430 and 450, or equivalent. A structured approach to building and maintaining dynamic and interactive Web applications. Emphasis is on application design and development. Practical opportunities to design and implement applications using ColdFusion are provided.

CCJS 100 Introduction to Criminal Justice (3)

An introduction to the administration of criminal justice in a democratic society, emphasizing the history and theories of law enforcement. The principles of organization and administration in law enforcement, including specific activities and functions (such as research and planning, public relations, personnel and training, inspection and control, and formulation and direction of policy) are covered. Students may receive credit for only one of the following courses: BEHS 351, CCJS 100, CCJS 351, or CJUS 100.

CCJS 105 Introduction to Criminology (3)

(Fulfills the general education requirement in behavioral and social sciences.) An overview of criminal behavior and the methods of studying it. Topics include causation; typologies of criminal acts and offenders; the practices and effects of punishments, correction, and incapacitation; and the prevention of crime. Students may receive credit for only one of the following courses: CCJS 105 or CRIM 220.

CCJS 230 Criminal Law in Action (3)

An exploration of law as a method of social control. The nature, sources, and types of criminal law are studied in relation to its history and theories. Behavioral and legal aspects of criminal acts and the classification and analysis of selected criminal offenses are covered. Students may receive credit for only one of the following courses: CCJS 230 or CJUS 230.

CCJS 234 Criminal Procedure and Evidence (3)

A study of the general principles and theories of criminal procedure. Topics include due process, arrest, search and seizure, and the evaluation of evidence and proof. Recent developments in the field are discussed. Students may receive credit for only one of the following courses: CCJS 234, CJUS 234, LGST 320, or PLGL 320.

CCJS 320 Introduction to Criminalistics (3)

Prerequisite: CCJS 100 or CCJS 105. An introduction to modern methods used in detecting, investigating, and solving crimes. The practical analysis of evidence in a criminal investigation laboratory is covered. Topics include photography, fingerprints, and other impressions; ballistics, documents and handwriting, glass, and hair; drug analysis; and lie detection. Students may receive credit for only one of the following courses: CCJS 320 or CJUS 320.

CCJS 330 Contemporary Criminological Issues (3)

(Fulfills the general education requirement in behavioral and social sciences.) Prerequisite: CCJS 100 or CCJS 105. An examination of career criminals, prison overcrowding, prediction, ecological studies of crime, family and delinquency, and similar criminological problems. Students may receive credit for only one of the following courses: CCJS 330 or CRIM 330.

CCJS 331 Contemporary Legal Policy Issues (3)

Prerequisite: CCJS 230 or CCJS 234. Thorough examination of selected topics: criminal responsibility, alternative sociolegal policies on deviance, law-enforcement procedures for civil law and similar legal problems, admissibility of evidence, and representation of the indigent's right to counsel. Students may receive credit for only one of the following courses: CCJS 331 or CJUS 330.

CCJS 340 Law-Enforcement Administration (3)

An introduction to concepts of organization and management as they relate to law enforcement. Topics include principles of structure, process, policy and procedure, communication and authority, division of work and organizational controls, the human element in the organization, and informal interaction in the context of bureaucracy. Students may receive credit for only one of the following courses: CCJS 340 or CJUS 340.

CCJS 350 Juvenile Delinquency (3)

(Fulfills the general education requirement in behavioral and social sciences.) Prerequisite: CCJS 100 or CCJS 105. An examination of juvenile delinquency in relation to the general problem of crime. Topics include factors underlying juvenile delinquency, prevention of criminal acts by youths, and the treatment of delinquents. Students may receive credit for only one of the following courses: CCJS 350 or CRIM 450.

CCJS 351 Issues in Criminal Justice (6)

(May be applied toward a specialization in behavioral and social sciences.) An interdisciplinary exploration of criminal justice. Topics include theories of the causes of crime; requisites of criminal liability; defenses; the rights guaranteed by the Fourth, Fifth, and Sixth Amendments to the U.S. Constitution; undercover investigation; special issues in juvenile justice; and the highly controversial issues of capital punishment and victimization. Students may receive credit for only one of the following courses: BEHS 351, CCJS 100, CCJS 351, or CJUS 100.

CCJS 352 Drugs and Crime (3)

Prerequisite: CCJS 100 or CCJS 105. An analysis of the role of criminal justice in controlling the use and abuse of drugs. Students may receive credit for only one of the following courses: CCJS 352 or CJUS 352.

CCJS 357 Industrial and Retail Security Administration (3)

An exploration of the origins of contemporary private security systems. The organization and management of protective units (industrial and retail) are examined. Students may receive credit for only one of the following courses: CCJS 357 or CJUS 360.

CCJS 360 Victimology (3)

(Fulfills the general education requirement in behavioral and social sciences.) Prerequisite: CCJS 100 or CCJS 105. An overview of the history and theory of victimology in which patterns of victimization are analyzed, with emphasis on types of victims and of crimes. The interaction between victims of crime and the system of criminal justice is considered in terms of the role of the victim and the services that the victim is offered. Students may receive credit for only one of the following courses: CCJS 360 or CRIM 360.

CCJS 370 Race, Crime, and Criminal Justice (3)

A historical and theoretical study of the role and treatment of racial/ethnic minorities in the criminal justice system.

CCJS 372 Criminal Justice and Domestic Violence (3)

Prerequisite: CCJS 100 or CCJS 105. An examination of the development and evaluation of the problem of domestic violence and the response of the criminal justice system to the problem. Focus is on development and enforcement of criminal laws and sanctions across the United States, with an emphasis on International law. Students may receive credit for only one of the following courses: CCJS 372 or CCJS 498I.

CCJS 400 Criminal Courts (3)

An examination of criminal courts in the United States at all levels. Topics include the roles of judges, prosecutors, defenders, clerks, and court administrators, and the nature of their jobs; problems of administration, as well as those facing courts and prosecutors; and reform. Students may receive credit for only one of the following courses: CCJS 400 or CJUS 400.

CCJS 430 Legal and Ethical Issues in Security Management (3)

An examination of current problems facing the security professional. Topics include legal liabilities, compliance issues, and ethical standards of organizations. Students may receive credit for only one of the following courses: CCJS 430 or CCJS 498F.

CCJS 432 Law of Corrections (3)

(Fulfills the general education requirement in behavioral and social sciences.) Prerequisite: CCJS 230 or CCJS 234. A review of the law of criminal corrections, from sentencing to final release or release on parole. Probation, punishments, special treatments for special offenders, parole and pardon, and the prisoner's civil rights are examined. Students may receive credit for only one of the following courses: CCJS 432 or CRIM 432.

CCJS 444 Advanced Law-Enforcement Administration (3)

Prerequisite: CCJS 340 or permission of the faculty member. A foundation in organizing the labor, material, and systems needed to accomplish the major goals of social control. Topics include personnel and systems management, as well as political controls and limitations on authority and jurisdiction. Students may receive credit for only one of the following courses: CCJS 444 or CJUS 444.

CCJS 445 Introduction to Security Management (3)

A study of the concepts, principles, and methods of organizing and administering security management and loss-prevention activities in industry, business, and government. Emphasis is on both private and governmental protection of assets, personnel, and facilities. Students may receive credit for only one of the following courses: CCJS 445 or   CCJS 498G.

CCJS 451 Crime and Delinquency Prevention (3)

(Fulfills the general education requirement in behavioral and social sciences.) Prerequisite: CCJS 100 or CCJS 105. A review of methods and programs used in preventing crime and delinquency. Students may receive credit for only one of the following courses: CCJS 451 or CRIM 451.

CCJS 452 Treatment of Criminals and Delinquents (3)

(Fulfills the general education requirement in behavioral and social sciences.) Prerequisite: CCJS 100 or CCJS 105. Analysis of processes and methods used to modify criminal and delinquent behavior. Students may receive credit for only one of the following courses: CCJS 452 or CRIM 452.

CCJS 453 White-Collar and Organized Crime (3)

(Fulfills the general education requirement in behavioral and social sciences.) Prerequisite: CCJS 100 or CCJS 105. An over-view of the definition, detection, prosecution, sentencing, and impact of white-collar and organized crime. Special consideration is given to the role of federal law and enforcement practices.

CCJS 454 Contemporary Criminological Theory (3)

(Fulfills the general education requirement in behavioral and social sciences.) Prerequisite: CCJS 100 or CCJS 105. A brief historical overview of criminological theory up to the 1950s. Deviance, labeling, and typologies, as well as the most recent research on criminalistic subcultures and on middle-class delinquency, are examined. Various recent proposals for decriminalization are discussed. Students may receive credit for only one of the following courses: CCJS 454 or CRIM 454.

CCJS 455 Theory and Principles of Executive Protection (3)

Prerequisite: CCJS 100 or CCJS 105. A study of concepts, principles, and methods of organizing and administering a successful protective security program for corporate executives, professional athletes, entertainment celebrities, and political personalities and families who are vulnerable and at risk for harassment, stalking, assault, kidnapping, or assassination at home, in the work environment, or while traveling. The philosophy and principles of protection and the use of both physical security techniques and electronic countermeasures are examined.

CCJS 460 School Safety and Security (3)

A study of methods of safeguarding the school environment. Topics include threat assessment in schools, essential security components for school safety and security, school culture and implications for safety and security, and crime prevention in schools (including the identification of warning signs and critical incident planning).

CCJS 461 Psychology of Criminal Behavior (3)

(Fulfills the general education requirement in behavioral and social sciences.) Prerequisite: CCJS 100 or CCJS 105. An over-view of the biological, environmental, and psychological factors that underlie criminal behavior. Characteristics of criminal behavior are reviewed. The influence of biophysiology and stress on the commission of various crimes is examined. Topics include patterns of maladjustment, disorders of the personality, psychoses, the connection between aggression and violent crime, sexual deviations and crimes that are sexually motivated, and the abuse of alcohol and drugs. Students may receive credit for only one of the following courses: CCJS 461 or CRIM 455.

CCJS 462 Protection of Business Assets (3)

An examination of the application of security knowledge and techniques for the protection of business assets. Topics include security planning methods, risk analysis, security surveys, and decision making for the development of security programs and countermeasures. Students may receive credit for only one of the following courses: CCJS 462 or CCJS 498H.

CCJS 463 Security: A Management Perspective (3)

An examination of managerial concepts, strategies, and skills needed to manage security-related operations and activities. Focus is on employee/employer security and the skills essential to manage the many, varied, and complex problems encountered in today's business environment. Students may receive credit for only one of the following courses: CCJS 463 or   CCJS 498K.

CCJS 464 Certified Protection Professional Program (3)

(Designed for private security and law-enforcement professionals.) A study of security management, focusing on the educational requirements for accreditation.

CCJS 486A Internship in Criminal Justice Through Co-op (3)

Prerequisites: CCJS 100 or CCJS 105; 9 credits in criminal justice; and formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in criminal justice. At least 12 hours per week must be devoted to new tasks for a total of 180 hours during the Co-op session; four new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to criminal justice and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

CCJS 486B Internship in Criminal Justice Through Co-op (6)

Prerequisites: CCJS 100 or CCJS 105; 9 credits in criminal justice; and formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in criminal justice. At least 20 hours per week must be devoted to new tasks for a total of 300 hours during the Co-op session; five to eight new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to criminal justice and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

CCJS 491 Institutional Security (3)

A survey of the security needs, methods, and technology of military, medical, academic, and other professional institutions. The integration of security concerns with other aspects of management are examined. Students may receive credit for only one of the following courses: CCJS 491 or CCJS 498E.

CCJS 495 Criminal Trial Issues (3)

Prerequisite: CCJS 100 or CCJS 105. An intensive study of the latest constitutional developments in the ever-changing areas of search and seizure, confessions, trial procedure, punishment, and appeals. Focus is on past and current trends of the U.S. Supreme Court in applying the Fourth, Fifth, Sixth, Eighth, and Fourteenth Amendments to federal as well as state law-enforcement practices. The case-study method is utilized. Actual Supreme Court case decisions and cases pending review and decision provide an opportunity to understand the doctrinal development of controlling principles and to predict future developments. Students may receive credit for only one of the following courses: CCJS 495 or CCJS 498A.

CCJS 496 Computer Crime and Security (3)

An examination of crimes involving the use of computers. Topics include federal and state laws and investigative and preventive methods used to secure computers. Case studies emphasize security. Students may receive credit for only one of the following courses: CCJS 496 or CCJS 498C.

CCJS 497 Correctional Administration (3)

Prerequisite: CCJS 100 or CCJS 105. An introduction to concepts of organization and management as they relate to the field of corrections. Topics include the history of corrections, principles of structure, policy and procedures, communication and authority, division of work, inmate discipline and due process, organizational culture, security, technology changes, and relationships with other components of the criminal justice system. Students may receive credit for only one of the following courses: CCJS 497 or CCJS 498D.

CCJS 498 Selected Topics in Criminology/Criminal Justice (3)

(Offered in response to student requests and faculty interest.) Prerequisites: CCJS 100 (or CCJS 105) and 230. Study of criminological topics of special interest to advanced undergraduates. May be repeated to a maximum of 6 credits in CCJS, CJUS, or CRIM when topics differ.

CCJS 498B Forensics and Psychology (1)

A survey of psychological research and theory dealing with behavior in the criminal trial process. Topics include jury selection, criminal profiling, eyewitness testimony, prediction of violent behavior, and mental competency of the accused. Students may receive credit for only one of the following courses: CCJS 498B or PSYC 309E.

CCJS 498J Criminal Justice and the Media (1)

An in-depth analysis of the effect of the news media on crime levels and public fear of crime. Public perceptions created by the manner in which crime is covered by the media are explored. Whether media responsibility includes crime prevention is considered.

CCJS 498L The Origin of the Right to Counsel (1)

An exploration of the historical basis of the right to counsel and the rationale behind the Sixth Amendment to the Constitution.

CCJS 498M The Public Defender in the Criminal Justice System (1)

An examination of the role of the public defender in the defense of the poor and indigent accused of criminal acts. Topics include the role of the public defender in the criminal justice system, the origin of the right to counsel, the indigent in the criminal justice system, the death penalty, and profiling.

CCJS 498N Media and the Courts (1)

An examination of the interaction between the First Amendment right to free speech and press and the fair administration of the criminal justice system, including the Sixth Amendment right to a public trial.

ECON 201 Principles of Economics I (3)

An introduction to the problems of unemployment, inflation, and economic growth. Emphasis is on the roles of monetary policy and fiscal policy in determining macroeconomic policy. The efficacy of controlling wages and prices is analyzed. Students may receive credit for only one of the following courses: ECON 201 or ECON 205.

ECON 203 Principles of Economics II (3)

Recommended: ECON 201. Analysis of the principles underlying the behavior of individual consumers and business firms. Topics include problems of international trade and finance, distribution of income, policies for eliminating poverty and discrimination, problems of environmental pollution, and effects of various market structures on economic activity.

ECON 205 Fundamentals of Economics (3)

A one-semester introduction to the principles of economics and their applications to the major economic problems of society. Topics include problems of population, poverty, inflation, unemployment, inequality, monopoly, urban renewal, environmental protection, economic planning, imperialism, international trade, and comparative economic systems. Students may receive credit for only one of the following courses: ECON 201 or ECON 205.

ECON 301 Current Issues in American Economic Policy (3)

Prerequisite(s): ECON 201 and 203, or ECON 205. Analysis of current economic problems and public policies. Topics include market power, federal budget and tax policy, governmental regulation, inflation, unemployment, poverty and distribution of income, and environmental issues.

ECON 305 Intermediate Macroeconomic Theory and Policy (3)

Prerequisites: ECON 201 and 203. Analysis of forces that determine a nation's income, employment, and price levels. Topics include consumption, investment, inflation, and governmental fiscal and monetary policy. Students may receive credit for only one of the following courses: ECON 305, ECON 403, or ECON 405.

ECON 306 Intermediate Microeconomic Theory (3)

Prerequisites: ECON 201 and 203. Analysis of the principles underlying the behavior of individual consumers and business firms. Theories of marketing systems, distribution, and the roles of externalities are covered. Students may receive credit for only one of the following courses: ECON 306 or ECON 403.

ECON 307 Development of Economic Ideas: Social and Political (3)

(Fulfills the historical perspective requirement.) Prerequisite: ECON 201 or ECON 205. A study of the development of economic ideas as they relate to underlying philosophies, views of the prospects of humanity, the role of values, methods of analysis, social history, and contemporary politico-economic problems. Theories advanced by Marx, Marshall, Veblen, Schumpeter, Samuelson, Friedman, Keynes, Galbraith, Myrdal, Robinson, and others are discussed.

ECON 315 Economic Development of Underdeveloped Areas (3)

Prerequisite(s): ECON 201 and 203, or ECON 205. Analysis of the economic and social characteristics of underdeveloped areas. Recent theories about economic development, obstacles to development, and policies and planning for development are discussed. Students may receive credit for only one of the following courses: ECON 315 or ECON 416.

ECON 321 Economic Statistics (3)

Prerequisite: MATH 220 or equivalent. Introduction to the use of statistics in economics. Topics include random variables and their distributions, analysis of variance, estimation, regression analysis, probability theory, sampling theory, and correlation. Students who receive credit for ECON 321 may not receive credit for the following courses: BEHS 202, BEHS 302, BMGT 230, ECON 321, GNST 201, MGMT 316, PSYC 200, SOCY 201, STAT 100, or STAT 200.

ECON 370 Labor Markets, Human Resources, and Trade Unions (3)

Prerequisite(s): ECON 201 and 203, or ECON 205. A survey of labor markets and the American labor movement. Topics include the growth and composition of the labor force; theories of determining wages; the wage/price spiral; collective bargaining; problems of unemployment and labor-market operations; and governmental regulation of employment and labor relations. Students may receive credit for only one of the following courses: ECON 370 or ECON 470.

ECON 380 Comparative Economic Systems (3)

(Fulfills the international perspective requirement.) Prerequisite(s): ECON 201 and 203, or ECON 205. A comparative analysis of the theory and practice of various types of economic systems, especially the economic systems of the United States, the former Soviet Union, the People's Republic of China, Western and Eastern Europe, and less-developed countries.

ECON 381 Environmental Economics (3)

Prerequisite: ECON 201 or ECON 205. Application of economic theory to problems of environmental quality and management. The theory behind common-property resources, economic externalities, alternative pollution-control measures, and limits to economic growth is discussed.

ECON 425 Mathematical Economics (3)

(For students with a minor in economics.) Prerequisites: ECON 201 and 203 and MATH 220. An explanation of the simpler aspects of mathematical economics. The types of calculus and algebra that are required for economic analysis are presented.

ECON 430 Money and Banking (3)

Prerequisite(s): ECON 201 and 203, or ECON 205. An examination of the structure of financial institutions and their role in providing money and near-money. Institutions, processes, and correlations analyzed include the functions of the Federal Reserve System, the techniques of central banks, the control of the supply of financial assets as a mechanism of stabilization policy, and the relationship of money and credit to economic activity and prices. Students may receive credit for only one of the following courses: ECON 430 or ECON 431.

ECON 440 International Economics (3)

(Fulfills the international perspective requirement.) Prerequisite(s): ECON 201 and 203, or ECON 205. A description of international trade and an analysis of international transactions, exchange rates, and balance of payments. Policies of protection, devaluation, and exchange-rate stabilization and their consequences are also analyzed. Students may receive credit for only one of the following courses: BEHS 440, ECON 440, or ECON 441.

ECON 450 Introduction to Public-Sector Economics (3)

Prerequisite(s): ECON 201 and 203, or ECON 205. A study of public finance, examining the roles of federal, state, and local governments in meeting the demands of the public. Theories of taxation, public expenditures, governmental budgeting, benefit/cost analysis, and redistribution of income are analyzed, along with their applications in public policy. Students may receive credit for only one of the following courses: ECON 450 or ECON 454.

ECON 484 The Economy of China (3)

(Fulfills the historical or international perspective requirement.) Prerequisite(s): ECON 201 and 203, or ECON 205. An inquiry into policies of the Chinese economy and how it has performed since 1949. A survey of the economic history of the People's Republic stresses the strategies and institutional innovations that the mainland Chinese have adopted to overcome problems in their economic development. Some economic controversies raised during the Cultural Revolution are covered in reviewing the problems and prospects of the current Chinese economy.

ECON 486A Internship in Economics Through Co-op (3)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in economics. At least 12 hours per week must be devoted to new tasks for a total of 180 hours during the Co-op session; four new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to economics and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

ECON 486B Internship in Economics Through Co-op (6)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in economics. At least 20 hours per week must be devoted to new tasks for a total of 300 hours during the Co-op session; five to eight new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to economics and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

EDCP 101 Effective Writing Skills (3)

(Does not fulfill the general education requirement in communications. Students for whom English is a second language should consider taking EDCP 101X instead. Recommended as preparation for ENGL 101.) A study of writing designed to improve basic skills at the level of sentence and paragraph. Topics include word choice, grammar, punctuation, and mechanics. Frequent opportunities to practice and refine skills are provided. Students may receive credit for only one of the following courses: EDCP 101, EDCP 101X, or ENGL 100.

EDCP 101X Effective Writing Skills (3)

(Does not fulfill the general education requirement in communications. Enrollment restricted to students for whom English is a second language. Recommended as preparation for ENGL 101X.) A study of writing designed to improve basic skills at the level of sentence and paragraph. Topics include word choice, grammar, punctuation, and mechanics. Frequent opportunities to practice and refine skills are provided. Students may receive credit for only one of the following courses: EDCP 101, EDCP 101X, or ENGL 100.

EDCP 103 Elements of Composition and Style (3)

(Does not fulfill the general education requirement in communications. Students for whom English is a second language should consider taking EDCP 103X instead. Recommended as preparation for ENGL 101 or upper-level writing courses.) Prerequisite: Satisfactory performance on a placement test or recommendation of an advisor. A review of basic writing skills. Topics include increasing language awareness, developing sophisticated diction, and improving grammar. Practice is provided in writing complex sentences, giving examples, and developing extended paragraphs. Focus is on discerning, gathering, organizing, and presenting evidence and on developing a narrative voice. Students may receive credit for only one of the following courses: EDCP 103, EDCP 103X, or ENGL 100.

EDCP 103X Elements of Composition and Style (3)

(Does not fulfill the general education requirement in communications. Enrollment restricted to students for whom English is a second language. Recommended as preparation for ENGL 101X or upper-level courses) Prerequisite: Satisfactory performance on a placement test or recommendation of an advisor. A review of basic writing skills. Topics include increasing language awareness, developing sophisticated diction, and improving grammar. Practice is provided in writing complex sentences, giving examples, and developing extended paragraphs. Focus is on discerning, gathering, organizing, and presenting evidence and on developing a narrative voice. Students may receive credit for only one of the following courses: EDCP 103, EDCP 103X, or ENGL 100.

EDCP 104 Vocabulary and Word Usage (1)

(Elective credit only.) A study of the development of English words and their modern meanings. Focus is on word derivations and families; roots, prefixes, and suffixes; context; vocabulary enrichment; and the use of reference materials. Students may receive credit for only one of the following courses: EDCP 100C, EDCP 104, EDCP 108 Vocabulary and Word Usage, or ENGL 100A.

EDCP 108B Reading and Study Skills (1)

(Elective credit only.) Developmental directed approaches designed to improve competency in managing one's own behavior. Improved reading and study skills are the goal. Students may receive credit for only one of the following courses: EDCP 108 Introduction to College Study Skills, EDCP 108 University Study for Adults, EDCP 108 College Study for Adults, or EDCP 108B.

EDHD 460 Educational Psychology (3)

An overview of educational psychology focusing on processes of learning. Measurement of differences between individuals (in intelligence, styles of thinking, understanding, attitudes, ability to learn, motivation, emotions, problem solving, and communication of knowledge) is investigated, and the significance of those differences is discussed. Problems in the field are introduced and outlined. Examination of research in educational psychology supplements study. Students may receive credit for only one of the following : EDCP 498E, EDHD 460, PSYC 309J, or PSYC 339.

ENGL 101 Introduction to Writing (3)

(Students for whom English is a second language should consider taking ENGL 101X instead.) Prerequisite: Satisfactory performance on a placement test. Practice in effective writing and clear thinking at all levels, including the sentence and paragraph, with emphasis on the essay and research report. Specific steps reviewed within the writing process include formulating purpose, identifying an audience, and selecting and using research resources and methods of development. Assignments include composing a total of at least 4,500 words (approximately 20 pages). Students may receive credit for only one of the following courses: ENGL 101
or ENGL 101X.

ENGL 101X Introduction to Writing (3)

(Enrollment restricted to students for whom English is a second language.) Prerequisite: Satisfactory performance on a placement test. Practice in effective writing and clear thinking at all levels, including the sentence and paragraph, with emphasis on the essay and research report. Specific steps reviewed within the writing process include formulating purpose, identifying an audience, and selecting and using research resources and methods of development. Assignments include composing a total of at least 4,500 words (approximately 20 pages). Students may receive credit for only one of the following courses: ENGL 101 or ENGL 101X.

ENGL 106 Introduction to Research Writing (1)

(Designed to help students enhance their research and writing skills.) Instruction and practice in the fundamentals of the research and writing process: planning and beginning a paper, composing the paper, citing sources, and presenting the paper in manuscript form. Both the MLA and APA styles of documentation are used.

ENGL 278F Introduction to Principles of Text Editing (3)

(Fulfills the general education requirement in communications.) Prerequisite: ENGL 101 or equivalent. An introduction to the practice of editing. Focus is on striving for correctness, consistency, and clarity of style, while writing, evaluating, and rewriting various documents. Topics include building an editor's reference library, exploring editing as a profession, and reviewing computer-assisted editing.

ENGL 281 Standard English Grammar, Usage, and Diction (3)

(Students for whom English is a second language should consider taking ENGL 281X instead. Fulfills the general education requirement in communications, but is not a writing course.) Prerequisite: ENGL 101 or equivalent. An overview of grammatical structures of standard formal and written English. Topics may include parts of speech, punctuation, choice and usage of words, sentence patterns, and advanced grammatical issues. Students may receive credit for only one of the following courses: ENGL 281 or ENGL 281X.

ENGL 281X Standard English Grammar, Usage, and Diction (3)

(Enrollment restricted to students for whom English is a second language. Fulfills the general education requirement in communications, but is not a writing course.) Prerequisite: ENGL 101X or equivalent. An overview of grammatical structures of standard formal and written English. Topics may include parts of speech, punctuation, choice and usage of words, sentence patterns, and advanced grammatical issues. Students may receive credit for only one of the following courses: ENGL 281 or ENGL 281X.

ENGL 303 Critical Approaches to Literature (3)

(Fulfills the general education requirement in intensive upper-level writing. Designed as a foundation for other upper-level literature courses.) Prerequisite: ENGL 101 or equivalent. A study of the techniques of literary analysis, emphasizing close reading of texts. The goal is to better understand and appreciate literature and to be able to formulate concepts and express them in well-written, coherent prose. Assignments include composing a total of 6,000 words (approximately 25 pages).

ENGL 304 The Major Works of Shakespeare (3)

(Fulfills the historical or international perspective requirement.) Prerequisite: ENGL 101 or equivalent. An overview of the variety of Shakespeare's works, including a representative sample of comedies, histories, tragedies, and romances. The goal is to gain a better under-standing of and appreciation for the plays, both in reading the texts and viewing performances of them.

ENGL 310 Medieval and Renaissance British Literature (3)

(Fulfills the historical or international perspective requirement.) Prerequisite: ENGL 101 or equivalent. An exploration of the cultural attitudes and values that separate the Middle Ages from the Renaissance, highlighting the changing role and purpose of the writer. Major works and authors may include *Beowulf, Sir Gawain and the Green Knight,* Chaucer, Spenser, Marlowe, and Shakespeare.

ENGL 311 17th- and 18th-Century British Literature (3)

(Fulfills the historical or international perspective requirement.) Prerequisite: ENGL 101 or equivalent. A study of culture of 17th-and 18th-century Britain seen through detailed study of selected major texts. Readings cover drama, poetry, political writings, and early novels by men and women. Authors may include Donne, Milton, Jonson, Swift, Pope, Montagu, and Wollstonecraft.

ENGL 312 Romantic to Modern British Literature (3)

(Fulfills the international perspective requirement.) Prerequisite: ENGL 101 or equivalent. A study of representative authors and works in British literature from the early 19th century to the present, with emphasis on the novel. Some poetry and drama are also covered. The works of representative writers (such as Jane Austen, Charles Dickens, Thomas Hardy, P. D. James, and others) are explored.

ENGL 313 American Literature (3)

(Fulfills the historical perspective requirement.) Prerequisite: ENGL 101 or equivalent. A detailed study of selected major texts of American literature since the 17th century, including women's literature, African American literature, and literature from various regions of the country.

ENGL 340 Studies in Fiction, Poetry, and Drama (3)

Prerequisite: ENGL 101 or equivalent. An exploration of literary genres that incorporates both contemporary and traditional works. Emphasis is on the study of literature—its creation, texts, and interpretations—as a means for developing interpretive and analytical skills. Students may receive credit for only one of the following courses: ENGL 240 or ENGL 340.

ENGL 345 Modern Poetry (3)

(Not open to students who have already completed ENGL 446.) Prerequisite: ENGL 101 or equivalent. A survey of British and American poetry from Yeats and Robinson to the present. Special emphasis is on Yeats, Pound, Eliot, Williams, Roethke, and Lowell.

ENGL 350 English and American Literature: Blake to Conrad (3)

(Fulfills the historical or international perspective requirement.) Prerequisite: ENGL 101 or equivalent. An exploration of the poetry, short stories, novels, and prose of British Romanticism, the American Renaissance, and Victorian England. The writings of seminal thinkers such as John Keats, Emily Dickinson, Mark Twain, Robert Browning, and Charles Dickens are studied. Salient topics may include the destruction of the wilderness, the conflicting roles of women, the struggles of African Americans, and the interrelationship of dreams and reality. Students may receive credit for only one of the following courses: ENGL 350 or HUMN 325.

ENGL 354 20th-Century American Women Writers (3)

Prerequisite: ENGL 101 or equivalent. An examination of the contributions of major American women writers of the 20th century in the novel, short story, drama, and poetry.

ENGL 358 20th-Century British Women Writers (3)

(Fulfills the international perspective requirement.) Prerequisite: ENGL 101 or equivalent. An examination of the contributions of major British women writers of the 20th century in the novel, short story, drama, and poetry.

ENGL 363 African American Literature to 1900 (3)

(Fulfills the historical perspective requirement.) Prerequisite: ENGL 101 or equivalent. An examination of the development, diversity, and quantity of African American literature, focusing on works composed before 1900. A broad range of African American writers are studied through some of their important but lesser-known works. Readings may include the writings of Phillis Wheatley, Frances Harper, Maria W. Stewart, David Walker, Frederick Douglass, William Wells Brown, Charles Chesnutt, and Paul Laurence Dunbar, as well as Sojourner Truth's "Ain't I A Woman?" speech.

ENGL 364 20th-Century African American Literature: The Fictional Vision (3)

(Fulfills the historical perspective requirement.) Prerequisite: ENGL 101 or equivalent. An examination of the development, diversity, and quantity of African American literature, focusing on contemporary novels. A broad range of major African American authors since 1900 are studied through some of their important but lesser-known works. Readings may include James Weldon Johnson's *The Autobiography of an Ex-Colored Man,* Zora Neale Hurston's *Their Eyes Were Watching God,* Richard Wright's *Uncle Tom's Children,* James Baldwin's *Go Tell It on the Mountain,* Ann Petry's *The Narrows,* Paule Marshall's *Brown Girl, Brownstones,* Toni Morrison's *Sula,* Alice Walker's *Meridian,* and Ernest Gaines's *A Gathering of Old Men.* Students may receive credit for only one of the following courses: ENGL 364 or HUMN 364.

ENGL 377 Medieval Myth and Modern Narrative (3)

(Not open to students who have completed ENGL 361. Fulfills the historical or international perspective requirement.) Prerequisite: ENGL 101 or equivalent. A study of literary patterns characteristic of medieval myth, epic, and romance; their continuing vitality in modern works; and links between medieval works (such as *The Prose Edda, Beowulf, Le Morte D'Arthur, The Volsunga Saga,* and *Grettis Saga*) and modern narratives (such as Tolkien's *The Lord of the Rings*).

ENGL 384 Advanced Grammar and Style (3)

(Fulfills the general education requirement in communications, but is not a writing course.) Prerequisite: ENGL 101 or equivalent. An examination of the basic units of grammatical description, the nature of grammatical categories and structures and the reasons for creating and using them, and the application of grammatical concepts to written style. Students may receive credit only once under this course number.

ENGL 388 Special Topics in Literature (1–3)

An in-depth introduction to literary works written by a specific author or authors, representative of a literary movement, or produced in a specific time or place. Assignments include advanced reading and research. Students may receive credit for a given topic in either ENGL 288 or ENGL 388 only once.

ENGL 389 Special Topics in English Literature (1–3)

An in-depth introduction to literary works written by a specific author or authors, representative of a literary movement, or produced in a specific time or place. Assignments include advanced reading and research. Students may receive credit for a given topic in either ENGL 289 or ENGL 389 only once.

ENGL 391 Advanced Composition (3)

(Fulfills the general education requirement in intensive upper-level writing.) Prerequisite: ENGL 101 or equivalent. Instruction and practice in methods of presenting ideas and factual information clearly and effectively. Emphasis is on developing skills fundamental to both workplace and academic writing. Published writings are discussed and evaluated. Assignments include composing a total of 6,000 words (approximately 25 pages).

ENGL 391X Advanced Composition (3)

(Enrollment restricted to students for whom English is a second language. Fulfills the general education requirement in intensive upper-level writing.) Prerequisite: ENGL 101X or equivalent. Instruction and practice in methods of presenting ideas and factual information clearly and effectively. Emphasis is on developing skills fundamental to both workplace and academic writing. Published writings are discussed and evaluated. Assignments include composing a total of 6,000 words (approximately 25 pages).

ENGL 396 Critical Analysis in Reading and Writing (6)

(Yields 3 English credits and 3 humanities credits. Fulfills the general education requirements in intensive upper-level writing and the arts and humanities.) Prerequisite: ENGL 101 or equivalent. A study of various strategies for improving thinking abilities and for evaluating the claims, reasoning, and evidence presented in articles and books from a variety of disciplines. Focus is on improving skills, explaining ideas effectively, and analyzing persuasive strategies used by others. Some attention is given to establishing goals for developing critical-thinking habits. Assignments include composing a total of 6,000 words (approximately 25 pages). Students may receive credit for only one of the following courses: ENGL 396, COMM 395 Critical Thinking and Writing, HUMN 395, or HUMN 396.

ENGL 402 Chaucer (3)

(Fulfills the historical or international perspective requirement.) Prerequisite: ENGL 101 or equivalent. An examination of selections from middle and modern English versions of Chaucer's *Canterbury Tales.* The cultural, literary, and linguistic foundations of Chaucer's tales are covered. Theme, structure, genre, and imagery are examined in each tale.

ENGL 403 Shakespeare: The Early Works (3)

(Fulfills the historical or international perspective requirement.) Prerequisite: ENGL 101 or equivalent. An introduction to Shakespeare's early period, concentrating on the histories and comedies. The study of approximately nine plays usually includes *A Midsummer Night's Dream, Romeo and Juliet, Richard II, Richard III, Henry IV, Henry V, Julius Caesar, As You Like It,* and *Twelfth Night.* Analysis of Shakespeare's dramatic techniques is emphasized. Some attention is given to his development and the historical milieu (e.g., the theater of that time). Titles and the number of plays selected each semester may vary. Students may receive credit only once under this course number.

ENGL 404 Shakespeare: The Later Works (3)

(Fulfills the historical or international perspective requirement.) Prerequisite: ENGL 101 or equivalent. An overview of Shakespeare's late period, concentrating on the tragedies and final comedies (often called romances). The study of approximately nine plays usually includes *Hamlet, Othello, Macbeth, King Lear, Antony and Cleopatra, The Winter's Tale,* and *The Tempest.* Analysis of Shakespeare's dramatic techniques is emphasized. Some attention is given to his development, especially his tragic vision and the historical milieu (e.g., the theater of that time). Titles and the number of plays selected each semester may vary.

ENGL 406 Shakespeare: Power and Justice (3)

(Fulfills the historical perspective or civic responsibility requirement.) Prerequisite: ENGL 101 or equivalent. An intensive study of eight of Shakespeare's dramatic masterpieces as they illuminate the concepts of power and justice in a social and cultural context. The exercise of power, the nature of kingship, and the responsibilities of those who judge others are traced throughout *Henry IV, King Lear, Macbeth, Hamlet, The Merchant of Venice, A Midsummer Night's Dream, Much Ado About Nothing,* and *The Tempest.* Primary considerations are the analysis of text, the development of character, and the constraints that performance imposes on the writing of plays. Students may receive credit for only one of the following courses: ENGL 406 or HUMN 440.

ENGL 418 Major British Writers Before 1800 (3)

(Fulfills the historical or international perspective requirement.) Prerequisite: ENGL 101 or equivalent. Intensive study of two British writers from the period before l800.

ENGL 419 Major British Writers After 1800 (3)

(Fulfills the international perspective requirement.) Prerequisite: ENGL 101 or equivalent. Intensive study of two writers from the period after 1800.

ENGL 425 Modern British Literature (3)

(Fulfills the historical or international perspective requirement.) Prerequisite: ENGL 101 or equivalent. An examination of representative authors and works in the development of British literature from the late 19th century to the present.

ENGL 433 American Literature: 1914 to the Present (3)

(Fulfills the historical perspective requirement.) Prerequisite: ENGL 101 or equivalent. A study of representative works—selected from drama, fiction, and poetry—that reflect significant trends in literary techniques and themes as well as shifts in cultural values.

ENGL 434 American Drama (3)

Prerequisite: ENGL 101 or equivalent. An examination of representative authors in the development of American drama, with emphasis on post–World War II writers. Playwrights studied may include Glaspell, O'Neill, Hellman, Miller, Williams, Hansberry, Inge, Albee, Shepard, Wilson, Howe, Henley, and Hwang. Film and television adaptations may be included.

ENGL 437 Contemporary American Literature (3)

Prerequisite: ENGL 101 or equivalent. A survey of representative authors and works in the development of American literature from 1945 to the present, with emphasis on fiction and drama. Works studied may include fiction by Truman Capote, John Cheever, Flannery O'Connor, Anne Tyler, Kurt Vonnegut, and Alice Walker and dramas by Tennessee Williams, Arthur Miller, Lorraine Hansberry, William Inge, August Wilson, Lanford Wilson, Tina Howe, Sam Shepard, and Tony Kushner. Some films may also be included.

ENGL 439 Major American Writers (3)

Prerequisite: ENGL 101 or equivalent. A literary analysis of the works of significant American writers, emphasizing subject matter, themes, and techniques. Representative writers usually include Twain, Wharton, Dreiser, Lewis, Fitzgerald, Hemingway, Faulkner, and Frost; other authors may be included. May be repeated to a maximum of 6 credits when topics differ.

ENGL 441 The Novel in America Since 1914 (3)

Prerequisite: ENGL 101 or equivalent. A survey of the American novel since World War I. Cultural and philosophical contexts and technical developments in the genre are discussed. Authors studied may include Ernest Hemingway, Willa Cather, William Faulkner, Anne Tyler, and Toni Morrison.

ENGL 454 Modern Drama (3)

(Fulfills the international perspective requirement.) Prerequisite: ENGL 101 or equivalent. An examination of representative authors in the development of modern drama, from Ibsen to the present. Plays are generally drawn from the works of Ibsen, Strindberg, Chekhov, Shaw, O'Neill, Miller, Williams, Brecht, Pirandello, Hansberry, Orton, Ionesco, Beckett, Pinter, Fugard, Albee, Stoppard, and Shepard. Film and television adaptations of some of the plays may be included.

ENGL 457 The Modern Novel (3)

(Fulfills the international perspective requirement.) Prerequisite: ENGL 101 or equivalent. An examination of the development of the novel from the late 19th century to the present, with emphasis on British and American works. Authors and works vary each semester but may include writers such as Thomas Hardy, Henry James, Theodore Dreiser, Edith Wharton, Virginia Woolf, William Faulkner, James Joyce, Anne Tyler, Alice Walker, and Tim O'Brien.

ENGL 466 The Arthurian Legend (3)

(Fulfills the historical or international perspective requirement.) Prerequisite: ENGL 101 or equivalent. A thematic exposition of the development of the Arthurian legend, traced from the fountainhead of the Arthurian romances, Monmouth's *History of the King of Britain,* to the greatest 20th-century Arthurian work, T. H. White's *The Once and Future King.* Works frequently included are *Sir Gawain and the Green Knight,* romances by Wolfram von Eschenbach, three medieval tales immortalizing the Lancelot/Guinevere love affair, and romances of Malory and Tennyson. The differences in the interpretations of a legend are explored. Works selected may vary.

ENGL 476 Modern Fantasy and Science Fiction (3)

Prerequisite: ENGL 101 or equivalent. An analysis of major works of fantasy and science fiction published since the middle of the 18th century. Emphasis is on the development of the genre as well as on literary and cultural issues. Authors may include Jonathan Swift, Mary Shelley, Nikolai Gogol, Edgar Allan Poe, Mark Twain, Robert Louis Stevenson, H. G. Wells, Ray Bradbury, Isaac Asimov, Ursula LeGuin, T. H. White, Robert Heinlein, Philip Dick, Douglas Adams, and Marion Zimmer Bradley.

ENGL 480 Creative Writing (3)

Fulfills the general education requirement in communications. Prerequisite: ENGL 101 or equivalent. Discussion and critical examination of students' work (poetry, fiction, and/ or drama). Constructive suggestions for improvement are offered. Students may receive credit for only one of the following courses: ENGL 480 or ENGL 498.

ENGL 481 The Art of Narration (3)

Prerequisite: ENGL 101 or equivalent. An overview of the scope, power, and techniques of narration, the oldest and most versatile form of writing. Topics include the applicability of narration to historic, dramatic, and business purposes. Focus is on identifying, analyzing, and practicing the following skills: freewriting, developing structure, delineating episodes, subdividing steps, improving pacing, writing purposeful sentences, controlling time, creating substance, heightening authenticity with voice, and providing interpretation. Students may receive credit for only one of the following courses: ENGL 479E or ENGL 481.

ENGL 482 Creative Writing: Writing the Novel (3)

Fulfills the general education requirement in communications. Prerequisite: ENGL 101 or equivalent. Exposure to the critical process and consultation on plans and manuscripts A five-step approach is followed for beginning a novel. Emphasis is on fiction-writing techniques, critical analysis, and creative philosophy. Critiques are given by students and teacher. Students may receive credit for only one of the following courses: ENGL 482 or ENGL 498N.

ENGL 483 Creative Writing: Writing and Revising the Novel (3)

Fulfills the general education requirement in communications. Prerequisite: ENGL 101 or equivalent. Consultation on manuscripts in progress, with an emphasis on revision and marketing. Emphasis is on fiction writing techniques, critical analysis, and creative philosophy. Critiques are given by students and the teacher. Students may receive credit for only one of the following courses: ENGL 483 or ENGL 499N.

ENGL 484 Writing Crime Fiction (3)

Prerequisite: ENGL 101 or equivalent. An analysis of crime stories—their popularity, literary form, and construction—and the methods used to write them. The flexibility of the form and how it can deal insightfully with a variety of subjects and themes are examined.

ENGL 485 Creative Writing: Poetry (3)

Fulfills the general education requirement in communications. Prerequisite: ENGL 101 or equivalent. A presentation of various ideas and techniques for writing poetry. Although professional poetry is discussed, the emphasis is on critiquing students' work. Weekly assignments are given. Students may receive credit for only one of the following courses: ENGL 485 or ENGL 498P.

ENGL 486A Internship in English Through Co-op (3)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in English. At least 12 hours per week must be devoted to new tasks for a total of 180 hours during the Co-op session; four new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to English and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

ENGL 486B Internship in English Through Co-op (6)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in English. At least 20 hours per week must be devoted to new tasks for a total of 300 hours during the Co-op session; five to eight new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to English and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

ENGL 487 Writer's Workshop: Writing Nonfiction (3)

Prerequisite: ENGL 101. A workshop on writing feature, travel, or nature articles. Models of contemporary nonfiction writing are examined. Topics include the writing process, writing openings and closings, word pictures and figurative language, character and dialogue, storytelling, style editing and revising, and the importance of research.

ENGL 488 Intermediate Fiction Workshop (3)

Prerequisite: Permission of department. Practice in the craft of writing fiction, with special attention to the revision process.

ENGL 493 Advanced Expository Writing (3)

(Fulfills the general education requirement in writing and communications.) Prerequisite: ENGL 101 or equivalent. Advanced practice in the cohesive, coherent organization and written presentation of information, facts, opinions, and ideas. Principles of effective writing are discerned in exposition and essays that serve as models for the students' writing.

ENGL 499 Independent Study in English (3)

Prerequisite: 6 credits in upper-level ENGL courses and consent of faculty member and department. Directed independent study of topics of special interest not covered by regularly scheduled courses in English. May be repeated to a maximum of 6 credits when topics differ.

ENMT 301 Environment and Ecosystems Management (3)

(Fulfills the civic responsibility requirement.) An overview of the scientific principles governing ecosystems, particularly as they relate to the environmental consequences of resource development and industrial processes. Topics are drawn from the fields of geology, hydrology, meteorology, and ecology. The historical development of environmental management issues and approaches is introduced. Principles of environmental management at the local, regional, and global levels are also covered.

ENMT 305 Hazardous Materials Toxicology (3)

An introduction to regulatory issues with a focus on the physical and chemical characteristics of nuclear, hazardous chemical, and mixed-waste materials. The normal function of human body systems is studied, drawing on the fields of chemistry, biochemistry, anatomy, and physiology. Basic principles of toxicology are applied to provide an overview of human health effects associated with exposure to hazardous chemicals in the community and in work environments.

ENMT 310 Emergency Planning and Operations Management (3)

A review of human-made and natural hazards and emergency-preparedness laws. The relationships between industrial processes and hazardous materials are covered. Focus is on developing skills to work safely in a hazardous environment and to prepare hazardous materials for transportation, processing, and disposal. Topics include hazardous materials emergency planning, including direction and control of emergency response and remediation. Preparation of emergency plans, methodology of disaster response, and performance of emergency operations are also reviewed. Practical exercises are used to demonstrate how to prepare for and respond to emergencies.

ENMT 315 Environmental Audits and Permits (3)

A study of the principles of environmental impact assessment and an in-depth look at various laws, regulations, and methods of performing due diligence audits. Topics include the regulatory requirements of NEPA, EIS reports, types of audits, ISO 14000 environmental systems standards, ASTM audit procedures, Department of Health and Safety audits, common law privileges, and self-regulation and business transfer statutes. Strategies and methodology for obtaining environmental permits and compliance are also reviewed.

ENMT 320 Environmental and Occupational Health and Safety Management (3)

A study of the principles of health and safety management. Topics include recognition, evaluation, and control of hazards; medical surveillance; personal protective equipment; spill and exposure prevention; and contamination reduction and removal methods. Emphasis is on relating these principles to the regulatory processes (e.g., OSHA/NIOSH) governing environmental and occupational health and safety.

ENMT 325 The Biosphere, Energy, and Sustainable Development (3)

(Fulfills the civic responsibility requirement.) An overview of biodiversity, conservation, assessment methods, and mitigation. Topics include the relationship between energy and the environment, the impact of fossil fuels on the environment, global concerns of ozone depletion and climate change, alternative and renewable energy sources, conservation and technical advances, and sustainable energy development. Global agreements to balance economic growth against life-support systems and the natural resource base are surveyed. The collective thinking of various experts—to advance and create sustainable development, defining the new paradigm and its implications for economic growth and managing the environment—is also explored.

ENMT 330 Environmental Monitoring and Investigations (3)

An examination of principles and methods used in monitoring, sampling, and analyzing pollutants in air, water, soil, and wastes. Focus is on developing and implementing sampling and analysis plans and quality assurance and quality control plans, using equipment for sampling and monitoring, and presenting investigation results. Site assessment and remedial investigation practices are also reviewed to characterize sites and explore "how clean is clean?"

ENMT 340 Environmental Technology (3)

An introduction to multimedia environmental management, control, and remediation. Existing, modified, new, and emerging technologies are surveyed. Case studies of real-world environmental challenges are presented to demonstrate the evaluation and selection of the appropriate technology for specific uses. Factors of technical integrity, cost effectiveness, and environmental soundness are explained in making technology application decisions.

ENMT 350 Integrated Waste Management (3)

An overview of applicable regulations and technology and management practices related to generation, handling, minimization, prevention, storage, processing, treatment, transfer, and disposal of municipal hazardous, nuclear, mixed, and special wastes. Topics include regulations, methods, and scientific principles for safely managing wastes from generation through final disposal.

ENMT 360 Water Environment Management and Use (3)

An overview of basic water system composition and how human activities cause pollution. Focus is on relevant laws and regulations, pollution assessment and evaluation techniques, alternative approaches to control pollution, and management systems. Also covered are safe drinking-water systems, water pollution control systems for sewage and industrial wastewater, and storm-water management.

ENMT 370 Environmental Communications and Information Systems (3)

A study of the structure, methodology, and application of the theoretical principles of communication as they pertain to a specific audience, content area, or situation. Emphasis is on conveying risk and legal information, communicating in emergencies, and using public relations skills. An overview of information technology and the use of computers in environmental management is provided. Topics include Internet sites, geographical information systems, environmental models and applications, environmental monitoring and measurement, and automated compliance strategies.

ENMT 380 Outdoor and Indoor Air Quality Management (3)

An overview of air quality management. Focus is on atmosphere, pollutants and sources, dispersion, effects, regulations, air pollution control, and noise control. Indoor air pollution topics include the study of sick buildings, causes and risk factors, diagnostic protocols, contamination measurement, and problem mitigation.

ENMT 390 Environmental Risk Assessment (3)

An overview of principles and relevant regulations and guidelines for performing environmental health and ecological risk assessments. Topics include the pros and cons of different risk assessment methods and how to plan, perform, and report environmental risk assessments. The use and economic effectiveness of risk assessments are also explored.

ENMT 405 Pollution Prevention and Other Strategies (3)

An overview of alternative environmental strategies. Topics include source reduction, recovery, reuse, recycling, and conservation; material substitution; process modifications; quality assurance, quality control, and good housekeeping; waste minimization; zero discharge; and pollution prevention, processing, treatment, and disposal. Emphasis is on pollution prevention techniques, practices, and case studies. Economic analysis and regulatory compliance related to these strategies are also reviewed.

ENMT 486A Internship in Environmental Management Through Co-op (3)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in environmental management. At least 12 hours per week must be devoted to new tasks for a total of 180 hours during the Co-op session; four new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to environmental management and that continues to advance application of academic theory in the work-place. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

ENMT 486B Internship in Environmental Management Through Co-op (6)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in environmental management. At least 20 hours per week must be devoted to new tasks for a total of 300 hours during the Co-op session; five to eight new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to environmental management and that continues to advance application of academic theory in the work-place. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

ENMT 493 Environmental Regulations and Policy (3)

An analytical survey of principles of constitutional and administrative law that are fundamental to environmental and health and safety management. Focus is on acquiring basic knowledge of federal legislation (including CWA, CAA, SDWA, RCRA/HSCA, CERCLA/SARA, FIFRA, TSCA, FDA, DOT, and OSHA) and becoming familiar with the use of the *Federal Register* and the *Code of Federal Regulations.* The social contract and its sanctions, as expressed in law and litigation at local, state, national, and international levels, are also reviewed.

ENMT 495 Environmental Management Issues and Solutions (3)

(Fulfills the civic responsibility requirement.) An examination of issues in environmental pollution, remediation, and conservation within a multifaceted scientific, legal, political, and global context. Selected topics are drawn fom ongoing national and international events concerning pollution issues. An overview of the fundamental elements of an integrated environmental management program is provided, using specific examples. Case studies are used to apply principles and concepts to environmental perspectives, experiences, and research issues. Project-planning and implementation techniques are considered with respect to environmental management and new paradigms of design for the environment. Previously acquired knowledge and skills are used to complement an advanced management project focusing on current issues in the field.

EXCL 301 Learning Analysis and Planning (3)

Prerequisite: Formal admission to the EXCEL program. Instruction in the preparation of a portfolio documenting college-level learning gained through non-college experience. Focus is on defining goals, exploring the relationship of experiential learning to conventional learning, and documenting learning gained through experience. Faculty evaluators assess completed portfolios for a possible award of credit.

FMST 341 Personal and Family Finance (3)

A study of individual and family financial strategies. Topics include financial planning, savings, investments, insurance, income tax, housing, and the use of credit. Strategies (such as planning, analyzing, and controlling financial resources) to resolve personal and family financial problems and attain financial security are discussed. Students may receive credit for only one of the following courses: CNEC 410, FMCD 341, FMCD 441, or FMST 341.

FSCN 302 Advanced Fire Administration (3)

A presentation of modern management and planning techniques that apply to organizing a fire department. Procedures explored include those for evaluation and control of budgeting, personnel, communications, and planning. The traditional and evolving roles of the fire department in protection, prevention, and community service are discussed.

FSCN 303 Analytic Approaches to Public Fire Protection (3)

A presentation of techniques of operations research and systems analysis as they apply to problems in fire protection. Discussion covers techniques such as cost/benefit analysis, methods for locating fire stations, and the use of statistical analysis. Techniques for collecting data on fires and for managing information are explained.

FSCN 304 Fire-Personnel Management (3)

An examination of personnel practices, management procedures, collective bargaining, binding arbitration, and applicable legislative and administrative procedures. Topics include promotion, personnel development, career and incentive systems, validation of physical requirements, and managerial and supervisory procedures.

FSCN 305 Fire-Prevention Organization and Management (3)

An examination of prevention as the primary community-based strategy for fire protection. Topics include community risk reduction, codes and standards, inspections and plans review, incident investigation, fire-prevention research, and the relationship of master planning to fire prevention. The cultural, economic, governmental, nongovernmental, and departmental influences on fire prevention are also explored. Emphasis is on applying the principles studied to anticipate problems and develop strategies for fire prevention.

FSCN 306 Incendiary-Fire Analysis and Investigation (3)

A presentation of procedures and techniques for determining, collecting, comparing, and analyzing data on incendiary fires. Principles of ignition phenomena and propagation variables are explained. Discussion deals with the legislative, economic, psychological, sociological, and legal aspects of incendiarism. The role of insurance and governmental programs in combating arson is assessed. Techniques of analyzing and predicting data, including pattern analysis, are presented.

FSCN 401 Disaster and Fire Defense Planning (3)

A study of the concept and principles of assessing community risk and then developing regional and cooperative procedures and plans of response. The relationship of structural, climatic, and topological variables to group fires, conflagrations, and natural disasters is analyzed. Other aspects introduced include pre- and post-occurrence factors, such as organization, communications, planning, coordination, and command and logistics.

FSCN 402 Fire-Related Human Behavior (3)

Explanation of the dynamics of human behavior in fire incidents. The functions and implementation of prevention practices, programs, codes, and ordinances are stressed. The concepts of risk, personal invulnerability, role, and group dynamics are examined in relation to design aspects of buildings and mitigation of the effects of fire on modern society. Discussion deals with proper ways of conducting postfire interviews, and emphasizes the psychological effects of communications during emergencies.

FSCN 403 Managerial Issues in Hazardous Materials (3)

The development of the knowledge and skills necessary to safely and effectively manage a hazardous materials emergency. Topics include health and safety concerns, political issues, regulations, site management and control, hazard and risk evaluation, information management, response objectives, special tactical problems, decontamination, and termination activities.

FSCN 411 Fire-Protection Structure and Systems Design (3)

Presentation of design principles involved in protecting buildings and other structures from fire. Empirical tests and prediction procedures are explained. Practices in designing systems for detecting, controlling, and suppressing fires, as well as the basic hydraulic design of sprinkler and water-spray systems are presented. Recent innovations in the field are reviewed.

FSCN 412 Political and Legal Foundations of Fire Protection (3)

A consideration of the legal basis for the police powers of the government in connection with public safety. The responsibility, legal limitations, and liability of fire-prevention organizations and personnel are examined. Judicial decisions are reviewed, with a focus on the implications of product-liability cases in the field of fire prevention.

FSCN 413 The Community and Fire Threat (3)

An analysis of the sociological, economic, and political characteristics of communities and their influence on the fire problem. Methods of studying community profiles and structures are presented; the economic, geographic, and sociological variables of fire threat are discussed. The functional basis of the community is examined, with attention to the diverse social roles of community agencies and the roles of fire service as a complex organization within the community.

FSCN 414 Fire Dynamics (3)

An investigation into the phenomena of fire propagation in the air-regulated phase and the fuel-regulated phase. Variables in the development of pre - and post-flashover fire are analyzed. Topics include geometric material; gaseous, fluid-flow, and thermodynamic parameters; and fire models of compartments and buildings.

FSCN 415 Application of Fire Research (3)

A practical, up-to-date review of fire research and its application. The transfer of research and its implications for fire prevention and protection programs are addressed. The focus is on both national and international studies, and on maintaining awareness of ongoing research developments.

FSCN 486A Internship in Fire Science Through Co-op (3)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in fire science. At least 12 hours per week must be devoted to new tasks for a total of 180 hours during the Co-op session; four new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

FSCN 486B Internship in Fire Science Through Co-op (6)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in fire science. At least 20 hours per week must be devoted to new tasks for a total of 300 hours during the Co-op session; five to eight new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

GEOL 100 Physical Geology (3)

A study of the principles of dynamic and structural geology. The rocks and minerals composing Earth, the movement within it, and its surface features and the agents that form them are surveyed. Students may receive credit for only one of the following courses: GEOL 100 or GEOL 101.

GERO 100 Introduction to Gerontology (3)

An overview of the processes of aging and the way aging is defined chronologically, functionally, biologically, sociologically, and psychologically. The physical, psychological, cultural, and social aspects of aging are examined. Topics include the demography of aging and its implications for society, social structure and processes (such as patterns of family and social roles), work and retirement, health care and housing, and the implications of an aging society for policy. Students may receive credit for only one of the following courses: GERO 100 or GERO 210.

GERO 220 Psychological Aspects of Aging (3)

A review of normal and pathological changes associated with the process of aging. Topics include sensory, perceptual, and psycho-motor processes; mental ability, drives, motives, and emotions; intelligence, memory, and cognitive functions; depression; neurological changes; Alzheimer's disease and related dementias; stress; life review processes; personality and adjustment; suicide; bereavement; and treatment modes. Emphasis is on the normal aging process, pathological changes in the elderly (according to current research), and understanding the difference between the two.

GERO 302 Health and Aging (3)

An exploration of the physiological processes of aging that covers normal aging and chronic illness. Topics include biological processes and theories of aging, bodily changes normally associated with aging, health care and long-term-care systems, and related medical terminology. Also reviewed are substance abuse, environmental factors affecting aging, and ways of promoting health, preventing disease, and assessing health risks.

GERO 306 Programs, Services, and Policies (3)

Prerequisite: GERO 100 or equivalent. An overview of programs and policies designed to enable older adults to obtain necessary services, enhance their health, improve or maintain their economic well-being, and provide support to families of the aging. Trends in aging programs, services, and policies are discussed. Topics include work, retirement, and income maintenance (employment concerns, pensions, Social Security, and Supplementary Security Income); delivery and regulation of health care (long-term care, home care, Medicare, and Medicaid); and social or community services (adult day care, in-home services, senior centers, nutrition and food programs, information and referrals, advocacy, elder abuse protection, and transportation) that promote well-being in older adults. Students may receive credit for only one of the following courses: GERO 304 or GERO 306.

GERO 307 Aging, Religion, and Spirituality (3)

(Fulfills the civic responsibility requirement.) An examination of aging, religion, and spirituality from the perspectives of the humanities and social science. Concepts of spiritual or religious development and aging are examined focusing on the major religious traditions: Buddhism, Islam, Judaism, Christianity, and Hinduism. A critical analysis of theoretical and empirical research and clinical perspectives of the role of religion and spirituality in the lives of older adults from different religious traditions are presented. Discussion covers definitions and concepts of religiosity and spirituality in the social science literature. The current and future impact of older adults on religious institutions, the responsibilities of religious institutions to their aging members, and the role of religion and spirituality in the lives of the aging are explored.

GERO 311 Women and Aging (3)

Prerequisite: GERO 100 or equivalent. An exploration of issues important to women in midlife and later adulthood. Topics include changes in identity, marriage and family, work, health, social relationships, and economic well-being. The impact of social class and ethnicity or culture on women's well-being in midlife and later adulthood is examined. The impact of policy and services on women's development and quality of life and life planning for midlife and aging women are also discussed. Students may receive credit for only one of the following courses: GERO 311 or GERO 497E.

GERO 327 Ethnicity and Aging (3)

(Fulfills the civic responsibility requirement.) Prerequisite: GERO 100 or equivalent. An examination of the increasing heterogeneity of the aging population in the United States. Theory and research related to ethnicity and aging are examined. The resources and needs of older adults in different ethnic groups (Hispanic, African American, Asian, and Native American) are explored. The impact of ethnicity and culture on the aging family, social support and caregiving, health, and social relationships is addressed. Implications for how social, health care, and government agencies can effectively meet the needs of older adults in ethnic communities are discussed.

GERO 331 Sociology of Aging (3)

Prerequisite: GERO 100 or equivalent. An examination of the social forces that impinge on the aging process from a number of theoretical perspectives found in sociology and social gerontology. Topics include the social ramifications of an aging population, sociological and social gerontological explanations of the aging process, interactions between the aging process and the larger social structure, cross-cultural similarities and differences in the aging experience, and current social policies toward aging and their implications for the future.

GERO 336 The Aging Family (3)

Prerequisite: GERO 100 or equivalent. An examination of issues faced by aging families. Topics include the structure of family networks; solidarity and conflict between generations; types and quality of support given to and by the older person; and social roles (including role strain, conflict, and reward). Emphasis is on understanding family caregiving—the experience of caregiving; the caregiver-recipient relationship; and the social, psychological, and economic costs of caregiving. The phenomena of grandparents parenting grandchildren is covered. The changing nature of family relationships is analyzed from the perspective of gender, race or ethnicity, social class, age, and historical context. Implications for social programs and policies to support aging families are also discussed. Students may receive credit for only one of the following courses: GERO 336 or GERO 496L.

GERO 338 Health Promotion in Older Adults (3)

Prerequisite: GERO 100 or equivalent. An exploration of health promotion issues in an older adult population. The literature on health promotion and health risk behaviors in older adults is analyzed critically. Focus is on the modification of risk behaviors related to the development of cardiovascular disease, cancer, and other illnesses common to older adults through ecological and educational models of health promotion. The impact of social, cultural, political, and economic factors on health behavior and health promotion is also examined.

GERO 341 The Long-Term-Care Continuum (3)

A survey of gerontological intervention programs and the care needs of the elderly and their families. The changing needs of aging individuals who have chronic physical and/or mental health impairments are examined. A framework for understanding community-based care (as opposed to institution-based care) and its continuum is provided. Focus is on understanding a multidisciplinary approach to community-, home-, and institution-based care. Students may receive credit for only one of the following courses: FMCD 499E, GERO 341, or GERO 496K.

GERO 342 Long-Term-Care Administration (3)

(Continuation of GERO 341.) An overview of the administrative and operational issues of long-term-care facilities. The responsibilities of a long-term-care administrator and relationships with personnel and administrative structure are examined. Topics include policy, procedures, and insurance or financing. Ethical and legal concerns of long-term care are also covered.

GERO 350 The Older Learner (3)

A critical examination of theory and research on education and learning in later life. Philosophical perspectives on education in later life are explored. Topics include educational opportunities and needs in later life; psychological, educational, and social aspects that influence learning in older adults; the impact of ethnicity, gender, age, and socioeconomic status on education and the teaching/learning process; and the development of educational programs, curricula, and teaching/learning strategies used with older adults. The evaluation of educational programs designed for older learners is also covered.

GERO 351 Management of Senior Housing Environment (3)

A framework for training of retirement-housing professionals. Topics include regulatory standards and processes for Housing and Urban Development senior housing structures, environmental design, behavioral and environmental interaction, dietary services, continuity of care, differentiation of management needs in various formats of senior housing, personnel, programming, and medical and personal care services.

GERO 353 Financial Management of Retirement Housing (3)

An examination of the operational side of senior housing management. Topics include the housing administrator's role as financial manager; application of accounting principles to senior housing needs; working capital, ratio analysis, and vertical analysis; budgeting in senior housing; purchasing; financing new facilities; payroll; and maintenance issues in senior housing.

GERO 355 Nutritional Concerns of Aging (3)

A survey of the nutritional concerns of the elderly, including causes, pathophysiology, prevention, and control. Topics include the role of nutrients in the etiology of various illnesses associated with aging (such as anemia, osteoporosis, gastrointestinal tract disorders, cancer, cardiovascular diseases, maturity-onset diabetes, crippling arthritis stroke, Alzheimer's disease, cataracts, tooth bss, and vision loss). Other topics include the effects of aging on appetite, nutrition and exercise, vegetarianism, and food choices. Nutritional assessment, the influence of different cultures on nutrition, and community resources are discussed. Students may receive credit for only one of the following courses: GERO 355 or GERO 495K.

GERO 380 End of Life: Issues and Perspectives (3)

Prerequisite: GERO 100. An exploration of death, dying, and bereavement from social, cultural, psychological, biomedical, economic, and historical perspectives. Topics include definitions of death, the meaning of death, psychological needs of the dying person and significant others, care of the dying, suicide, euthanasia, end-of-life decision making, the economics of life-sustaining care, and bereavement and grieving.

GERO 390 Economics of Aging (3)

(Fulfills the civic responsibility requirement.) Prerequisite: ECON 201, ECON 203, or ECON 205. A survey of the fundamental sources of economic security that older adults receive, the many problems they face in retirement, and the impact of an aging population on the nation's economy. The sources of economic security received by older adults are analyzed according to race or ethnicity, gender, and social class background. Topics include the history, development, and fundamental structure of the Social Security and pension systems; Medicare, Medicaid, and private health coverage; the myriad public assistance programs for which elderly persons are eligible; and the nation's evolving private and public policies on retirement. The sources and relative amounts of income the elderly receive, as well as patterns of spending in older adult households are examined. Major income support programs available to older adults are profiled. Other topics include baby boomer retirement, international economics of aging, the financial situation of older women and their poverty, reverse annuity mortgages, "productive aging" (work and volunteering after retirement), and implications of demographics for our society and its economic structure.

GERO 410 Cross-Cultural Perspectives of Aging (3)

(Fulfills the civic responsibility or international perspective requirement.) Prerequisite: GERO 100. An examination of how different cultures interpret aging and the life cycle. Topics include cross-cultural theory and research on aging, research methods, and global demographics of aging. Analysis covers cross-cultural perspectives of norms and values regarding older adults, work, family, and community roles for older adults, the social and economic status of older adults, intergenerational relationships, care-giving, end-of-life issues, social services, and social policy. Healthcare for older adults is also examined.

GERO 443 Making Gerontology Relevant to Other Disciplines (3)

(Designed to assist students in other disciplines to integrate gerontology with their major area of academic study.) Prerequisites: GERO 100, 220 (or PSYC 357), 331, and 302 (or BIOL 307). An exploration of fundamental gerontological concepts (adaptation, health, functional ability, family/intergenerational relations, interdependency, activity, and economic security) from a multidisciplinary perspective. Implications for practice are examined from the perspective of individual academic majors. Avenues for fostering interaction among different disciplines as they pertain to gerontology are explored. Discussion also covers how new linkages can be forged between scientists and practitioners in gerontology and professionals within various academic areas.

GERO 460 Neurocognitive Functioning in the Aging (3)

Prerequisite: GERO 100 or equivalent. An overview of the processes of aging and the older person's place in society. Aging is defined chronologically, functionally, biologically, sociologically, and psychologically. Demographic changes in the average age of the population of the United States are discussed. Topics include social structure and processes (s uch as family and kinship patterns), the roles of work and retirement, health versus illness, and social roles. Life -cycle socialization (including values, beliefs, and cultural norms) is discussed. The development of age-related social assumptions, stereotypes, and myths; intergenerational issues; theories of disengagement; and the effects of ethnic, racial, and socioeconomic identity on aging are also discussed.

GERO 486A Internship in Gerontology Through Co-op (3)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in gerontology. At least 12 hours per week must be devoted to new tasks for a total of 180 hours during the Co-op session; four new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to gerontology and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

GERO 486B Internship in Gerontology Through Co-op (6)

Prerequisite: Formal admission to the Co-op program . An opportunity to combine academic theory with new, career-related experience in gerontology. At least 20 ours per week must be devoted to new tasks for a total of 300 hours during the Co-op session; five to eight new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to gerontology and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

GERO 495 Special Topics in Development and Health (1–3)

Specialized study in gerontology and related topics, focusing on issues in development and health. May be repeated to a maximum of 6 credits when topics differ.

GERO 495C Alzheimer's Disease: Current Issues, Perspectives, and Research (1)

A theoretical and practical approach to the study of Alzheimer's disease, covering its etiology and establishing its place among the chronic dementias. Topics include medical ethics, legal issues, care-giving, anticipatory grieving, support groups for both patients and caregivers, and community networks. Students may receive credit for only one of the following courses: GERO 495C or HLTH 498U.

GERO 495D Adaption to Sensory Changes and Aging (1)

A review of age differences in sensory processes. Along with the physical changes, the social and psychological implications of these sensory impairments are considered. Prosthetic devices and other human factors are also discussed. Strategies to improve communication with family and friends are addressed.

GERO 495E Developing Stress-Management Programs for Older Adults (1)

An exploration of various approaches for identifying sources of stress and developing stress-management strategies and skills for a diverse older adult population. Focus is on various stress models and the development of stress-management programs for specific groups within the older adult population. Skills and strategies for addressing various types of stress are explored.

GERO 495G Common Clinical Conditions of Older Patients (1)

(Geared for a nonmedical, lay audience.) A review of both emergent and nonemergent specific medical conditions that commonly afflict elderly populations. Case histories are presented as examples. Conditions discussed include pain, bleeding, infection, incontinence, feeding problems, confusion, and falls and fractures.

GERO 495I More Than Movement (1)

Presentation of and practice in activities designed to motivate and increase joint articulation, range of motion, and enjoyment of body movement, as well as to stimulate deeper breathing and physical awareness. Focus is on promoting healthier bodies, minds, and spirits through interrelated arts, fun, and social interaction regardless of the level of physical functioning.

GERO 495L Movement, Stress Management, and Fulfilling Human Potential (1)

A practical exploration of creative ways to attain more awareness, develop techniques for relaxing and reducing stress, and increase one's ability for self-expression. Music, art, imagery, relaxation, deep breathing, sensitivity awareness, dance, and theatre games are used to improve self-confidence and communication abilities. Students may receive credit for only one of the following courses: EDHD 499Z or GERO 495L.

GERO 495N Aging Creatively and Positively (1)

(Students should wear loose, comfortable clothing.) An overview of techniques for relaxation and rejuvenation designed to aid in understanding the aging process and attitudes to it.

GERO 496 Special Topics in Social and Family Relations (1–3)

Specialized study in gerontology and related topics focusing on social and family relations. May be repeated to a maximum of 6 credits when topics differ.

GERO 496B Issues Affecting Older Workers and Their Employers (1)

An overview of issues affecting older workers and their employers. Topics include descriptive information about older workers and the types of work they perform, policy issues governing older workers and their employers, attitudes about older workers among employers and workers, methods to combat age discrimination, and future issues for older workers in the United States and Europe.

GERO 496C Managing Loss and Grief: Approaches for the Human Services Provider (1)

A discussion of a new understanding of grief and loss that has emerged from health care and counseling practices. Therapeutic interventions, responding to varied loss-inducing situations, that help clients satisfactorily work through accompanying grief while promoting personal growth are explained.

GERO 496G Elder Abuse and Criminal Victimization (1)

A survey of abusive treatment of older people in the context of violence in families. The typical characteristics of the abusers and the abused, as well as the causes and types of crimes of abuse, are examined. Further topics include methodological shortcomings in the conduct of research on cases of abuse, alternative strategies of intervention, and the types of stress that caregivers experience. Students may receive credit for only one of the following courses: GERO 496G or HLTH 498L.

GERO 496H International Perspectives on Health Services in Gerontology (1)

A comprehensive overview of methods and techniques used to analyze how international health systems provide gerontological services. Examination covers government- and non-government-sponsored approaches to ensuring continued health-benefits coverage/services to older and retiree populations. Topics include resources, organization, economic development and support, and delivery of services for several countries. Students may receive credit for only one of the following courses: FMCD 499F or GERO 496H.

GERO 496I Understanding and Coping with Life Transitions (1)

A study of the transitions of adulthood and aging, such as divorce, career changes, retirement, grandparenthood, illness, and the death of a spouse or loved one. The Transition Coping Model is used to look at factors that make a difference in dealing with change.

GERO 496K Long-Term Care: Options and Alternatives (1)

An overview of resources available for people no longer able to live independently. The continuum from home care to independent living is examined to determine which type of living situation best suits the individual's medical, personal care, and financial needs. A field trip to a nearby long-term-care facility is included. Students may receive credit for only one of the following courses: FMCD 499E, GERO 341, or GERO 496K.

GERO 496P Elder Rights: Social Security and Medicare (1)

An overview of the history and evolution of Social Security and Medicare, including an exploration of basic benefits, current conflicts, and implications for the future.

GERO 496R Geriatric Case Management (1)

A review of the concept of geriatric case management, including the needs of older adults and appropriate interventions.

GERO 497 Special Topics in Administration and Planning (1–3)

Specialized study in gerontology and related topics focusing on administration and planning. May be repeated to a maximum of 6 credits when topics differ.

GERO 497D Retirement Planning: Managing Your Estate (1)

(For nonlawyers.) An examination of the principles and strategies used to settle an estate. Topics include administration of wills and estates, ownership and transfer of property, will substitutes, trusts and powers of appointment, strategies for giving charitable gifts, and gift and estate taxes. Students may receive credit for only one of the following courses: FMCD 499D or GERO 497D.

GERO 497K Strategic Planning for Retirement (1)

A discussion of the techniques for achieving financial independence at retirement and the economic, governmental, and business factors that work against reaching this goal. Topics covered include Social Security and Medicare; pensions, and tax-deferred savings plans, including 401(k)s and IRAs; and how much to save for retirement throughout the life span.

GERO 497M Managed Health Care Services in Gerontology (1)

A comparative analysis of the delivery of managed health services to retirees and the elderly in the United States. Focus is on the financing of comprehensive benefits and services while considering demographics, employer-sponsored approaches, government-sponsored approaches, indemnity approaches, and self-sponsored approaches. Key concepts examined include employer/retiree cost-sharing coverage, tax-deferred funding options, purchasing cooperatives, health alliances, fiscal management, and capitation.

GERO 497N Vocational Planning in Gerontology (1)

A review of the various vocational pathways in gerontology. Topics include suggested plans of study, professional affiliations, and market demands.

GVPT 100 Principles of Government and Politics (3)

A study of the basic principles and concepts of political science.

GVPT 170 American Government (3)

A comprehensive study of government in the United States—national, state, and local.

GVPT 199A Korean Public Administration (1)

An examination of the organization and function of the Korean government and its impact on Korean society. Contemporary political issues in Korea and the legacy of past governments' relations with local governments are discussed.

GVPT 199B Political Reform in South Korea (1)

A basic study of the reform movement of the past civilian government of Kim, Yongsam. The many challenges faced by the new government in attempting to remodel the bureaucratic process after three decades of military-backed leadership are discussed.

GVPT 199C International Terrorism (1)

An examination of the origins, theories, methods, dangers, and possible future of international terrorism. The serious nature of terrorism today and how prepared government should be to control it are addressed. Topics include the definition of terrorism; reasons for growth; terrorist groups and their grievances; supporters of terrorism; questions of moral or philosophical justification; and protection against kidnappings, skyjackings, and bombings. Students may receive credit for only one of the following courses: GVPT 199C or GVPT 401D.

GVPT 199H Conflicts in Contemporary Black Africa (1)

A concise introduction to the political background of Africa. Topics include Africa's colonial heritage, the postindependence period with the problems faced by the new African leadership, and the demands of a modern economy. Pan-Africanism and the importance and problems of the African states in the United Nations are also considered. Students may receive credit for only one of the following courses: GVPT 199H or GVPT 484A.

GVPT 199M Austrian Political Issues: Post–World War II to the Present (1)

An analysis of the most pressing issues in Austrian politics, both within the international framework and in internal Austrian affairs. Emphasis is on post–World War II developments and continuities: the system of social partnership, the party system and democratic behavior, and coming to terms with Austria's Nazi past before and after the Waldheim affair. The changes after joining the European Union in 1995 (in the areas of economics, military security and status of neutrality) and Austria's role vis-a-vis Eastern Central Europe are also discussed. Students may receive credit for only one of the following courses: GVPT 199M or GVPT 377M.

GVPT 199O U.N. Peacekeeping (1)

A study of the United Nations and its efforts to maintain or initiate peace in world conflicts. Topics include the Cold War, the end of that bipolar system, and current peacekeeping efforts around the globe. The effectiveness of the organization is examined. Students may receive credit for only one of the following courses: GVPT 199O or GVPT 377L.

GVPT 199P Presidential Election: 2000 (1)

A study of the 2000 presidential election. Topics include the influence of mass media on modern campaigns; the role of issues and ideology in the election; the intricacies of campaign financing; differences in campaign strategies; and the role of Third party or minority party candidates during the entire election process. Students may receive credit for only one of the following courses: GVPT 199P or GVPT 377I.

GVPT 199S The CIA and the Role of Intelligence in U.S. Foreign Policy (1)

A study of the intelligence function and American intelligence agencies. Focus is on American foreign policy, its execution, and objectives. The proper role of a secret intelligence agency in a democratic society is also discussed.

GVPT 199V German Politics and Policies (1)

A study of German political and educational systems, social and economic policies, and partnership with America.

GVPT 200 International Political Relations (3)

(Fulfills the civic responsibility or international perspective requirement.) A study of the major factors underlying international relations, the methods of conducting foreign relations, the foreign policies of the major powers, and the means of avoiding or alleviating international conflicts. Students may receive credit for only one of the following courses: GVPT 200 or GVPT 300.

GVPT 210 Introduction to Public Administration and Policy (3)

An introduction to the study of the administrative process in the executive branch. The concepts and principles of administration are examined, then placed in the context of their relationship to public policy. Organizational structure and theory are analyzed; the behavior of participants in the administration of policy is probed.

GVPT 240 Political Ideologies (3)

(Fulfills the international perspective requirement.) A survey and an analysis of the leading ideologies of the modern world. Topics include anarchism, communism, socialism, fascism, nationalism, and democracy.

GVPT 260 State and Local Government (3)

A study of the functioning and the problems of state and local government in the United States. Illustrations are drawn from International jurisdictions.

GVPT 272 Politics of Race Relations in the United States (3)

An examination of the political dimension of historical and contemporary racial cleavage in the United States. Particular emphasis is on the period after World War II.

GVPT 282 The Government and Politics of the Third World (3)

(Fulfills the civic responsibility or international perspective requirement.) A study of how the internal politics of Third World nations develop. The governmental institutions, processes, and problems of the Third World are evaluated in light of the socio-economic environments that are common to most of the states of Africa, the Middle East, Asia, and Latin America.

GVPT 306 Global Ecopolitics (3)

(Fulfills the civic responsibility or international perspective requirement.) An assessment of controversial worldwide problems. Topics may include growth and its limitations, agricultural productivity, the depletion of resources, the energy crisis, pollution, and the general effects of science and technology on the ecological, socioeconomic, and political systems of the world. These problems are considered as objects of public policy.

GVPT 335 Foreign Policy and the New World Order (6)

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

GVPT 377A Role of Intelligence Agencies in U.S. Foreign Policy (1)

A study of the history and development of the intelligence community in the United States. Topics include the CIA, the military intelligence establishment, and intelligence agencies in other federal government departments. The function of the U.S. intelligence community and how it interfaces with the government in foreign policy are discussed.

GVPT 377B Korean-American Security Relations (1)

A study of the changing Korean-American security relationship. Topics include Korean-American relations, the U.S. involvement in Northeast Asia, and the perceptions of Koreans of their role in Northeast Asia. Some techniques of political science and international relations are covered.

GVPT 377C Japanese-American Security Relations (1)

A study of the complex and unique security relationship between Japan and the United States. Focus is on Japanese-American relations and the Japanese perception of its security and foreign policy role in Asia.

GVPT 377E The Gulf War: 1990–91 (1)

A study of the political, diplomatic, and economic context of the Gulf War. Emphasis is on the significance of the conflict between Iraq and Kuwait and the struggle for dominance in the Persian Gulf. The problems related to the work of the international coalition under the leadership of President George Bush and the consequences of that coalition and of the war's outcome are surveyed.

GVPT 377F The Nuclear Question: Strategic Nuclear Doctrine (1)

A study of the nuclear question that examines the relationship of national security policy to foreign policy and of the military strategy of the United States to its moral and political ends. Topics include the nature and effects of nuclear weapons, strategies for their use and nonuse, arms control efforts, and a number of contemporary policy issues.

GVPT 377I Presidential Election: 2000 (1)

A study of the 2000 presidential election. Topics include the influence of mass media on modern campaigns; the role of issues and ideology in the election; the intricacies of campaign financing; differences in campaign strategies; and the role of Third party or minority party candidates during the entire election process. Assignments include advanced reading and research. Students may receive credit for only one of the following courses: GVPT 199P or GVPT 377I.

GVPT 377J Genocide in Bosnia: International War Crimes Trials (1)

A study of the first international war crimes trials since those that judged German and Japanese leaders after World War II. Topics include conceptual definitions of genocide and ethnic cleansing, historical and current perspectives of genocide in the world, the history of the conflict in former Yugoslavia, crimes against humanity in former Yugoslavia, and war tribunals and the judging of war criminals.

GVPT 377K Recent U.S.-Russian Relations (1)

A study of the historical relationship between the United States and Russia. Emphasis is on the current postures of the two superpowers.

GVPT 377L U.N. Peacekeeping (1)

A study of the United Nations and its efforts to maintain or initiate peace in world conflicts. Topics include the Cold War, the end of that bipolar system, and current peacekeeping efforts around the globe. The effectiveness of the organization is examined. Assignments include advanced reading and research. Students may receive credit for only one of the following courses: GVPT 199O or GVPT 377L.

GVPT 377M Austrian Political Issues: Post–World War II to the Present (1)

An analysis of the most pressing issues in Austrian politics, both within the international framework and in internal Austrian affairs. Emphasis is on post–World War II developments and continuities: the system of social partnership, the party system and democratic behavior, and coming to terms with Austria's Nazi past before and after the Waldheim affair. The changes after joining the European Union in 1995 (in the areas of economics, military security and status of neutrality) and Austria's role vis-a-vis Eastern Central Europe are also discussed. Assignments include advanced reading and research. Students may receive credit for only one of the following courses: GVPT 199M or GVPT 377M.

GVPT 377N Contemporary Issues in Modern Germany (1)

An exploration of the critical social, political, economic, and cultural developments that shape Germany as a reunified state. Topics include the dynamics of reunification, the challenges of Germany's European and international roles in the post–Cold War era, Germany's social and economic structures, the political culture, problems of "belt-tightening" in this former "economic miracle" society, monetary union, NATO and defense, education reform, environment, taxation, labor, and foreigners and asylum seekers.

GVPT 377O Nuclear Diplomacy and Arms Control (1)

A study of the changing role of nuclear weapons in world politics
Focus is on domestic and international factors affecting nuclear programs and arms control policies.

GVPT 377P Ethics in International Politics (1)

An analysis of the countless problems of interstate and inter-human relationships at the global level. Topics include differing customs, principles, and standards of conduct.

GVPT 377Q The KGB (1)

A survey of the evolution and policies of the Soviet Committee for State Security (the KGB). Topics include organizational structure, leaders, worldwide operations, and impact on Soviet policy, especially on the Soviet succession struggle.

GVPT 377S Black Africa, Black America (1)

A study of Africa as the ancestral and spiritual home of Black America. Topics include the particular struggle of the African peoples for emancipation, the role of Africa in contemporary world affairs, the contributions of eminent personalities to the advancement of the Black race and the development of the Civil Rights movement in the United States, and independence movements in Africa beginning in the 1950s.

GVPT 377T The Declaration of Independence and the U.S. Constitution (1)

An examination of the events, personalities, and political philosophy that led to the declaration. The personalities and events that gave rise to the Grand Convention and its final product, the U.S. Constitution, are also explored.

GVPT 377U Critical Presidential Elections in American History (1)

An examination of several critical presidential elections, from Jefferson's election in 1800 to the present. Key personalities, major issues, and the election process are explored.

GVPT 399B The Legislative Process and Lobbying Techniques (3)

An introduction to the organization and functioning of Congress. Topics include basic rules and procedures and the influence of lobbyists. How a bill becomes law and techniques of lobbying are discussed.

GVPT 399C Lawyers and the Adversary System (3)

An overview of the adversary system of justice, from the perspective of lawyers, their clients, and society as a whole. Topics include the basic structure of the adversary system, criminal law, the social and ideological foundations of the adversary system, and the peculiar role of lawyers in the system. Comparisons are made with the legal systems of several European countries and the People's Republic of China. Assignments include debating two topics related to the adversary system.

GVPT 399G Recent Right-Wing Terrorism in the United States (1)

A brief survey of right-wing terrorism as practiced by various entities (such as the Ku Klux Klan, contemporary survivalists, religious zealots, and promoters of intolerance).

GVPT 399H Counterterrorism (3)

An examination of the prevention, detection, handling, and investigation of terrorist attacks. Focus is on the interlocking nature of effective security procedures and investigative techniques and methodologies used before, during, and after real or abortive terrorist incidents. Topics include the role of the media both in covering and in investigating terrorist events, and the emerging constitutional and socio-political dilemmas for democracies, such as the threats to privacy and individual rights posed by the emergence of highly sophisticated terrorist tactics.

GVPT 399J The Role of a United Germany in Post–Cold War Europe (1)

A critical examination of the position a reunited Germany, distanced from the guilt of the Second World War, is attempting to define for itself in a Europe without the Iron Curtain. Topics include alliances, the Bundeswehr, United Nations membership, European prosperity, and the relationship between Germany and Russia.

GVPT 399K NATO Expansion (1)

A critical examination of the arguments for and against first-tier NATO expansion and subsequent enlargement. Topics include the case for NATO expansion, its costs, the three first-tier candidates (Poland, Hungary, and the Czech Republic), beyond the first tier, and Russian concerns.

GVPT 399L Japanese Politics Since World War II (3)

A study of the evolution of Japanese politics since the end of the Second World War. Emphasis is on changes in bureaucracies and in party politics.

GVPT 399M The European Union and the Road to European Unification (1)

An examination of the European Union in historical perspective, and an attempt to chart its course into the future. Issues are explored through various questions: Can unification work? How far can the diverse cultures of Europe merge? How much autonomy are the states willing to relinquish? Topics include the single currency, foreign policy, and possible expansion.

GVPT 399N Communist Manifesto (3)

An introduction to the *Communist Manifesto* of Karl Marx and Frederick Engels. Topics include the legacy of the French Revolution of 1789, Marx's appeal to the widest possible audience in the *Manifesto* itself, Marx's and Engels' subsequent amendments to the original published text, and the 150-year-old history of the *Manifesto* and its differing interpretations. The ideological role the *Manifesto* played in both the rise and the demise of the Soviet Union is considered.

GVPT 399O Seminar in National Security (1)

An overview of the different components of U.S. national security, including policy and organization. Internal and external factors affecting national security are covered.

GVPT 399P Government and Politics of South Korea (3)

A study of the Korean political system and political decision making process. Topics include the system of government, the origin of governmental policies, and the role of public policies in Korean society. The current government reform movement and recent political events are also discussed. How the political system can catch up with recent developments in the Korean economy is considered.

GVPT 399Q The United Nations (1)

An examination of the United Nations—its history, current status, and possible directions for the future.

GVPT 399R Violence in the American Character (1)

A brief survey of recent examples of the more violent aspects of American culture and systems of government.

GVPT 399S The American Congress (1)

A study of one of the most powerful legislative bodies in the world—the American Congress. Focus is on the structure and inner workings of Congress as well as the constitutional basis for its operations. The basic rules of the electoral and legislative processes and the resources and strategies of members of Congress and other key players are also analyzed.

GVPT 399T National Security Secrets (3)

A study of the protection of national security secrets. Statutes, executive orders, regulations, policy statements, and studies concerning the need for national security secrets and mechanisms for protecting them are examined. Emphasis is on understanding what and how information is classified as well as the ground rules for information declassification. The government's criminal and civil tools for protecting classified information (including review of espionage statutes, secrecy agreements, and the procedures for granting or denying security clearances) are also discussed.

GVPT 399U Politics and Government (3)

A discussion of the organization and functioning of state government, with emphasis on the legislative branch.

GVPT 399V Change and Conflict in Centraland Eastern Europe (3)

Prerequisite: GVPT 100 (or GVPT 170) and 200. An examination of the collapse of Soviet domination and Communist rule from the Baltic to the Balkans. Focus is on the political, social, and economic transition brought on by the end of the Cold War and changes in the former Soviet Union.

GVPT 399W Personnel Security Clearance Law in the Federal Sector (3)

An examination of the various types of personnel security clearance laws. Emphasis is on security clearances needed by federal civilian workers, military personnel, and contract employees for sensitive duties such as accessing classified information or government computer networks. The security clearance process and guiding laws are reviewed and analyzed.

GVPT 399X Politics of Southern Africa (3)

An exploration of South African political, economic, and social organization. Emphasis is on the long evolution of "apartheid" policies and their reversal in the 1990s. Topics include minority dominance, majority resistance, revolution, and reform.

GVPT 399Y Human Rights in the World (3)

A study of the principles and practices governing human rights from the beginning of mankind to the modern international conventions and U.N. Declarations. The present international and national push for human rights and emancipation is analyzed and discussed.

GVPT 400 Business and Politics (3)

A study of the inner workings of key political, social, and economic institutions in American society and their effect on individuals, business, and government. Topics include central issues facing contemporary society; the powers of government and business; government regulations affecting business, the consumer, the workplace, and environment; and business and government in the world economy.

GVPT 401 Problems of World Politics (3)

(Fulfills the civic responsibility or international perspective requirement.) A study of governmental problems of international scope. Topics include causes of war, problems of neutrality, and propaganda. Assignments include reports on readings from current literature.

GVPT 401A International Political Terrorism (3)

(Fulfills the international perspective requirement.) An examination of the development of international political terrorism. Topics may include the definition of terrorism; the historical antecedents of modern terrorism; the motivations, organizations, and support networks of terrorists; the nature of crisis management; the responses of the world community; the effects of terrorism on free societies; and the linkages of terrorist states to international terrorism. The ability of civilization to withstand this type of attack upon its fabric is discussed.

GVPT 401B State Terrorism (3)

An exploration of the use of terror and political violence by governments, against their own citizenry or against other nations, in the furtherance of national goals. Review begins with the Reign of Terror in revolutionary France and culminates with a recent 20th-century example, the invasion of Kuwait by Iraq.

GVPT 401C Urban Terrorism (3)

An examination of terrorism in the urban environment. Topics include the definition of terrorism; the historical antecedents of urban terrorism, from the Paris Commu ne to the *Minimanual of the Urban Guerrilla;* the motivation, organization, tactics, and support networks of urban terrorists; and the nature of crisis management in the face of urban terrorist activity. The role of advanced technology in rendering society more vulnerable to urban terrorism is evaluated, with industrial and postindustrial society considered as catalysts for terrorist attacks in urban settings. Urban terrorism is viewed in the contexts of transnational and international terrorism. The effects of terrorism on a free society are assessed.

GVPT 401D International Terrorism (1)

An examination of the origins, theories, methods, dangers, and possible future of international terrorism. The serious nature of terrorism today and how prepared government should be to control it are addressed. Topics include the definition of terrorism; reasons for growth; terrorist groups and their grievances; supporters of terrorism; questions of moral or philosophical justification; and protection against kidnappings, skyjackings, and bombings. Assignments include advanced reading and research. Students may receive credit for only one of the following courses: GVPT 199C or GVPT 401D.

GVPT 401E Political Aspects of International Terrorism (3)

An examination of the origins, theories, methods, dangers, and possible future of international terrorism. The serious nature of terrorism today and how prepared governments should be to control it are addressed. Topics include the definition of terrorism; reasons for growth; terroris t groups and their grievances; supporters of terrorism; questions of moral or philosophical justification; and protection against kidnappings, skyjackings, and bombings.

GVPT 402 International Law (3)

A study of the basic character, general principles, and specific rules of international law. Emphasis is on recent and contemporary trends in the field. The relationship of law to other aspects of international affairs is analyzed as well.

GVPT 403 Law, Morality, and War (3)

(Fulfills the civic responsibility requirement.) An exploration of fundamental moral and legal issues concerning war.

GVPT 405 Defense Policy and Arms Control (3)

A survey of contemporary issues of military strategy and international security. The processes of formulating defense-related political and economic policy are examined. Topics include nuclear war and conventional (limited) warfare, insurgency by guerrillas, arms control and disarmament, and the possibilities for moderation of war.

GVPT 411 Public Personnel Administration (3)

A survey of components of public personnel administration. Topics include the development of the merit civil service, the personnel agency, classification, recruitment, examinations and techniques of administering them, promotion, service ratings, training, dis cipline, employee relations, and retirement.

GVPT 412 Public Financial Administration (3)

A survey of governmental financial procedures. Analysis focuses on processes of current and capital budgeting, the administration of public borrowing, the techniques of public purchasing, and the machinery of control through pre-audit and post-audit.

GVPT 413 Governmental Organization and Management (3)

A study of the theories of organization and management in the U.S. government. New trends, experiments, and reorganization are major topics.

GVPT 414 Administrative Law (3)

A study of the discretion exercised by administrative agencies. Their functions, their powers over persons and property, their procedures, and judicial sanctions and controls are analyzed.

GVPT 426 Public Opinion (3)

An examination of public opinion and its effect on political action. Emphasis is on propaganda, pressure groups, and the formation and measurement of opinions.

GVPT 431 Introduction to Constitutional Law (3)

A systematic inquiry into the general principles of the U.S. constitutional system. Special reference is made to the role of the judiciary in interpreting and enforcing the federal Constitution.

GVPT 433 The Judicial Process (3)

An examination of judicial organization in the United States at all levels of government. Emphasis is on legal reasoning, legal research, and court procedures.

GVPT 434 Race Relations and Public Law (3)

A political and legal examination of rights protected by the Constitution as they affect racial minorities. The constitutional powers of the federal courts, the executive branch, and Congress to define, protect, and extend those rights are probed.

GVPT 436 Legal Status of Women (3)

An examination of judicial interpretation and applications of common, statutory, and constitutional laws as they affect the status of women in American society.

GVPT 442 History of Political Theory: Middle Ages to the Present (3)

(Fulfills the historical perspective requirement.) A survey of the principal political theories set forth in the works of thoughtful writers from Niccolo Machiavelli to John Stuart Mill.

GVPT 443 Contemporary Political Theory (3)

(Fulfills the historical or international perspective requirement.) Prerequisite: GVPT 100. A survey of the principal political theories and ideologies from Karl Marx to the present.

GVPT 444 American Political Theory (3)

(Fulfills the historical perspective requirement.) A study of the development and growth of American political concepts from the colonial period to the present.

GVPT 451 Foreign Policy of Russia and the States of the Former Soviet Union (3)

(Fulfills the historical or international perspective requirement.) A study of the development of the foreign policy of Russia and the other states of the former Soviet Union. The processes of policy formation and the forces and conditions that make for continuities and changes are examined. Students may receive credit only once under this course number.

GVPT 452 Inter-American Relations (3)

(Fulfills the historical perspective requirement.) An analytical and historical study of the policies of the United States toward Latin America. Focus is on examining problems in relations with particular countries and discussing recent political developments.

GVPT 453 Recent East Asian Politics (3)

(Fulfills the historical or international perspective requirement.) A perspective on the background of recent political events in East Asia. Interpretation of the influence of those events on worldwide politics is included.

GVPT 454 Contemporary African Politics (3)

(Fulfills the international perspective requirement.) A survey of contemporary developments in the international politics of Africa. Special emphasis is on the role of an emerging Africa in world affairs.

GVPT 455 Contemporary Middle Eastern Politics (3)

(Fulfills the historical or international perspective requirement.) A survey of contemporary developments in the international politics of the Middle East. Emphasis is on the role emerging Middle Eastern nations have been taking in world affairs.

GVPT 457 American Foreign Relations (3)

(Fulfills the historical perspective requirement.) A study of the principles and machinery of American foreign relations. Emphasis is on the conduct of the U.S. Department of State and the Foreign Service. Analysis of the major foreign policies of the United States is provided.

GVPT 460 State and Local Administration (3)

A study of the administrative structure, procedures, and policies of state and local governments. The focus is on the state level and on intergovernmental relationships. Illustrations are drawn from historical governmental arrangements.

GVPT 461 Metropolitan Administration (3)

An examination of problems facing administrators of public services, planning, and coordination in a metropolitan environment.

GVPT 473 Legislature and Legislation (3)

A comprehensive study of the organization, procedures, and problems involved in legislation. Opportunities for contact with Congress and with the legislature are provided.

GVPT 474 Political Parties (3)

A descriptive and analytical examination of American political parties, nominations, elections, and political leadership.

GVPT 475 The Presidency and the Executive Branch (3)

An examination of the various roles of the president in the political process of the United States. The president's involvement in legislative matters, the president's function in the executive branch, and the president's role in his or her political party are assessed.

GVPT 479 Problems in American Public Policy (3)

A study of the background and interpretation of various factors that affect the formation and execution of American public policy.

GVPT 480 Comparative Political Systems (3)

A study, along functional lines, of major political institutions, such as legislatures, executives, courts, bureaucracies, public organizations, and political parties.

GVPT 481 Government and Administration of Russia and the States of the Former Soviet Union (3)

(Fulfills the international perspective requirement.) A comparative study of the governmental systems and political processes of the states of the former Soviet Union.

GVPT 482 Government and Politics of Latin America (3)

(Fulfills the international perspective requirement.) A comparative study of the governmental systems and political processes of the countries of Latin America. The cases of Argentina, Brazil, Chile, and Mexico are evaluated.

GVPT 483 Government and Politics of Asia (3)

(Fulfills the international perspective requirement.) A comparative study of the political systems of China, Japan, India, and other selected Asian countries.

GVPT 484 Government and Politics of Africa (3)

(Fulfills the international perspective requirement.) A comparative study of the governmental systems and political processes of the countries of Africa. Special emphasis is on the problems of nation-building in emerging countries.

GVPT 484A Conflicts in Contemporary Black Africa (1)

A concise introduction to the political background of Africa. Topics include Africa's colonial heritage, the postindependence period with the problems faced by the new African leadership, and the demands of a modern economy. Pan-Africanism and the importance and problems of the African states in the United Nations are also considered. Assignments include advanced reading and research. Students may receive credit for only one of the following courses: GVPT 199H or GVPT 484A.

GVPT 485 Government and Politics of the Middle East (3)

(Fulfills the international perspective requirement.) A comparative study of the governmental systems and political processes of the countries of the Middle East. Emphasis is on the problems of nation-building in emerging countries.

GVPT 486A Internship in Government and Politics Through Co-op (3)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in government and politics. At least 12 hours per week must be devoted to new tasks for a total of 180 hours during the Co-op session; four new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to government and politics and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

GVPT 486B Internship in Government and Politics Through Co-op (6)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in government and politics. At least 20 hours per week must be devoted to new tasks for a total of 300 hours during the Co-op session; five to eight new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to government and politics and that continues to advance application of academic theory in the work-place. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

GVPT 487 Government and Politics of South Asia (3)

(Fulfills the international perspective requirement.) A comparative study of political processes and governmental forms of such countries as India, Pakistan, Bangladesh, Ceylon, and Nepal.

GVPT 488 Comparative Studies in European Politics (3)

Fulfills the international perspective requirement.) Prerequisite: GVPT 280 or GVPT 282. A comparative study of political processes and governmental forms in selected European countries. Students may receive credit for only one of the following courses: GVPT 486 or GVPT 488.

GVPT 498A Contemporary Issues in the Middle East (1)

An investigation of the modern Middle East. Topics include significant stages in modern Arab history, notions of honor and shame, religion, and other factors of cultural importance. Western stereo-types and misconceptions of the region and the people are examined. The problems of state development, the struggle over Palestine, and the causes and possible results of the Gulf War are analyzed.

GVPT 498X Terrorism, Antiterrorism, and Prevention Laws (3)

A review and analysis of federal laws on terrorism. Emphasis is on the analysis and application of federal acts, laws against terrorism, and antiterrorism provisions. Topics include policy formation and the implementation of current terrorism, antiterrorism, and prevention laws. Various components of the laws and their impact are assessed.

HLTH 106 Drug Use and Abuse (3)

An interdisciplinary analysis of contemporary issues and problems with drugs. The use and the abuse of drugs are explored from historical, social, psychological, philosophical, physiological, legal, and health-related perspectives.

HLTH 285 Controlling Stress and Tension (3)

An analysis of the many health problems related to stress and tension. Causative psychosocial stressors and intervening physiological mechanisms are highlighted, with emphasis on the prevention and control of stress by means of techniques such as biofeedback, meditation, and neuromuscular relaxation.

HLTH 471 Women's Health (3)

An exploration of the women's health movement from the perspectives of consumerism and feminism. The relationship of physician and patient is considered in relation to the gynecological examination and other medical settings. Other topics include gynecological problems, pregnancy, contraception, breast cancer and cervical cancer, abortion and other surgical procedures, and the psychological aspects of gynecological concerns.

HLTH 498P Personal Wellness and Self-Realization (3)

An overview of concepts of total health, or wellness. Discussion explores ways to achieve an optimal quality of life, on the basis of four major tenets: that optimal quality of life involves seeking to realize one's full potential in all dimensions of life; that balance is the guiding principle; that personal responsibility requires an individual to be in control of his or her own well-being; and that a holistic synthesis of lifestyle and guiding philosophies promotes a self-realization that leads to optimal satisfaction.

HMGT 310 Health Services Policies (3)

Prerequisite: BMGT 230 or equivalent. An overview and analysis of public policies that govern the organization, delivery, and financing of health services in the United States. Particularly considered are public policy objectives, the decision processes of formulating and implementing objectives and programs, and the effectiveness of major governmental programs. Topics include the effects of rising health care costs, Medicare and Medicaid, competition and regulation, technology and technology assessment, HMOs and alternative reimbursement systems, the supply and distribution of physicians, the availability of capital, and quality assurance.

HMGT 320 Health Services Management (3)

A thorough treatment of the concepts and principles of effective managerial leadership in a health services organization. The management process is explored; major theories and classic literature in the field are reviewed. Emphasis is on critical aspects of managing people: leadership, communication, motivation, and decision making.

HMGT 322 Health Services Financial Management (3)

Prerequisite: HMGT 320. Instruction in acquiring, allocating, and managing the financial resources of health services systems. Economic and accounting practices are discussed in terms of budget administration, cost analysis, financing strategies, and internal controls. The probable economic consequences of various national health-insurance proposals are also considered.

HMGT 325 Health Services Economics (3)

Prerequisite: HMGT 320. An introduction to contemporary economic theory and its application in the management of health services systems. Competency in the area of health services economics is furthered by a review of basic theoretical concepts and models in health economics. The goal is to examine how economic forces affect the health services sector and how economic tools can be used by managers and incorporated into public policy to improve performance in health services. Students may receive credit for only one of the following courses: HMGT 325 or HMGT 398A.

HMGT 330 Issues in Health Services Management (3)

Prerequisite: Any 300-level HMGT course. An analysis of social, cultural, and philosophical issues that directly or indirectly affect the management of health services. Emphasis is on developing skills in critical thinking. Students may receive credit for only one of the following courses: HMGT 330 or HMGT 398B.

HMGT 398 Special Topics in Health Services Management (1–3)

Prerequisite: HMGT 325 or HMGT 410. An advanced, senior-level, intensive inquiry into special topics in health services management that reflect the changing needs and interests of students and faculty. May be repeated to a maximum of 6 credits when topics differ.

HMGT 398C Research Issues and Methods in Health Services Management (3)

Prerequisite: Any 300-level HMGT course. An overview of the basic instrument and methods used in research on the management of health services. Aspects discussed range from the definition of a problem to the presentation of data. Emphasis is on the information that managers of health services need, how managers obtain that information, and how they use such information in making decisions. Topics include the analysis of needs, evaluation of the effectiveness of programs in health services, and techniques used in reviews for determining rates.

HMGT 398D Managed Care in Health Services Management (3)

An overview of concepts, strategies, and current practices of managed health care and managed competition systems in the public and private health services sectors. The roles and responsibilities of entry- and midlevel managers as agents for change in developing federal, state, and local government initiatives to reform the delivery of health services are explored. Various methods used to regulate, monitor, and evaluate the effectiveness and efficiency of managed-care organizations and program activities, particularly in terms of implementation issues and cost-containment initiatives, are examined. Discussion covers financing, contracting, and network management of managed-care systems and highlights health informatics and data required to monitor access, quality, cost, and outcomes of managed-care systems.

HMGT 398E Health Communications (3)

An overview of health services communications that use applied commercial marketing concepts and techniques. Topics include using consumer-oriented approaches of social and commercial marketing as the basis for developing health communications between providers and consumers. The roles and responsibilities of entry- and midlevel managers in developing and delivering communications about health delivery systems and benefits are examined. Focus is on concepts and strategies for developing effective health communications in a typical health service program and techniques and paradigms for enhancing organizational efforts to prevent health risk behaviors. Comparisons are made between various frameworks and methods for developing effective health communications from the perspective of health planning and policy.

HMGT 398G Management of Tele-Health Programs (3)

An exploration of health care delivery through the use of telecommunication technology, i.e., telemedicine, and telemedicine programs and systems. Topics include the history of telemedicine, types and applications of telemedicine programs, components of some successful telemedicine programs, the impact of telemedicine on management of the health care delivery process, issues covered in telemedicine programs, management evaluation and measures of effectiveness for telemedicine programs, and trends affecting telemedicine. Management evaluations of lessons learned from past telemedicine experiences are conducted, and a case study of management techniques and issues in the approval of an advanced telemedicine program is performed.

HMGT 398H Pharmacy Practice Management (3)

An exploration of emerging structures for finance, delivery, and systems of pharmacy services within integrated health care networks. Topics include successful development and management of alliances with pharmaceutical companies, vendors, and distributors; insurance and network care providers; and provider hospitals, clinics, health maintenance organizations, preferred provider organizations, managed care systems, and medical practices. Emphasis is on strategies for service delivery, organizational integration within the health care environment, community partnering, contract negotiation, quality control regulation, and governance in relationship to pharmacy management. Cost containment and pricing strategies are addressed as well as pharmacoeconomic strategies.

HMGT 398I Integrated Health Systems Management (3)

An exploration of emerging structures for finance and delivery of comprehensive health services in integrated health systems and practices. Topics include successful development and management of alliances, provider hospital organizations, and managed-care systems. Emphasis is on strategies for vertical integrations, community partnering, contract negotiation, and governance.

HMGT 410 Introduction to Health Services Planning (3)

Prerequisite: Any 300-level HMGT course. A review of the methodology of planning effectively for health services. The use of data systems for identifying and analyzing problems and for forecasting is explored, along with the processes of setting priorities, developing projects, and allocating resources.

HMGT 415 Ethical Considerations in Health Services (3)

(Fulfills the civic responsibility requirement.) Prerequisite: Any 300-level HMGT course. An introduction to contemporary health-related ethical considerations and their implications for providers and consumers of health services. Issues such as abortion, death and dying, research on human subjects, and manipulated genetics are analyzed.

HMGT 416 Legal Aspects of Health Services Administration (3)

Prerequisite: HMGT 310. A study of federal and state law designed to provide prospective health services professionals with the knowledge and expertise to avoid many legal pitfalls in providing health care and administering health services facilities. Topics include health-care labor law, screening for drugs, testing for AIDS, medical confidentiality, malpractice, commercial law, and antitrust laws.

HMGT 430 Health Services Marketing and Strategic Management (3)

Recommended: HMGT 410. An introduction to contemporary theories of marketing and strategic management as they apply to the management of health services systems. Discussion of applications of the concepts is intended to increase managerial competency. Students may receive credit for only one of the following courses: HMGT 430 or HMGT 498A.

HMGT 486A Internship in Health Services Management Through Co-op (3)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in health services management. At least 12 hours per week must be devoted to new tasks for a total of 180 hours during the Co-op session; four new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to health services management and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship course-work through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

HMGT 486B Internship in Health Services Management Through Co-op (6)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in health services management. At least 20 hours per week must be devoted to new tasks for a total of 300 hours during the Co-op session; five to eight new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to health services management and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

HMGT 498 Special Topics in Health Services Management (1–3)

Prerequisite: HMGT 325 or HMGT 410. An advanced, senior-level, intensive inquiry into special topics in health services management that reflect the changing needs and interests of students and faculty. May be repeated to a maximum of 6 credits when topics differ.

HMGT 498B Managing Quality in Health Services Systems (3)

Recommended: HMGT 410. An introduction to contemporary theories of marketing and strategic management as they apply to the management of health services systems. Discussion of applications of the concepts is intended to increase managerial competency. Students may receive credit for only one of the following courses: HMGT 430 or HMGT 498A.

HMGT 498C Comparative International
Health Systems Analysis: A Managerial Perspective (3)

(Fulfills the international perspective requirement.) An overview of the concepts, strategies, and current practices employed by various countries in establishing governance policies and financing approaches for health systems delivery. Discussion covers techniques for analyzing various approaches to the delivery of health services and the governance of health providers. The use of the systems approach in analyzing the dimensions, structure, and development of international health systems is examined, and various paradigms for health systems development are considered. The targeting of comprehensive health services to key constituencies (including employers, employees, the general population, and at-risk populations) is explored. Focus is on use of economic, financial, qualitative, and quantitative tools to review national and regional cost-based approaches to planning and delivering health services and establishing policies on recovery of costs.

HMGT 498D Health Insurance Analysis and Issues in Health Systems Management (3)

An analysis of major health insurance issues and a study of health insurance administration for various health care entities, including managed-care providers. Topics include coverage by Medicare, Medicaid, and other health insurance programs and relationships between health network practices and insurance companies. Health insurance planning and programming are examined from the perspective of both businesses and health services providers.

HMGT 498E Practice Management (3)

Recommended: HMGT 398H, HMGT 398I, or experience in the field. An applied management survey of major concepts of managing medical, health, and dental group services practices. Practices examined include preferred provider organizations, physician hospital organizations, independent practice associations, management services organizations, and dental group practice networks. Examination covers such issues as structuring professional compensation systems for practices and networks and negotiating with insurance companies regarding contract reimbursements. Topics also include regulatory guidelines and requirements for medical equipment and pharmaceutical storage and dispensing, and determination of benefits offered to practice and network employees.

HMGT 498V Health Information-Systems Management (3)

Prerequisite: HMGT 320 or IFSM 300. A study of the use of health information systems to manage the flow of data in various medical professions—a key factor in managing health care costs. The systems perspective is examined in assessing, selecting, and implementing vital processes within the organization. Topics include billing and scheduling systems, accounting and financial information systems, medical records, processing, imaging systems, staffing and work flow, and medical research systems. Governmental and public policy issues related to the transmittal of health care data are also considered. Students may receive credit for only one of the following courses: HMGT 498V or IFSM 498V.

HIST 115 World History I (3)

(Fulfills the historical or international perspective requirement.) A survey of Western and non-Western civilizations and cultures from earliest times to 1500. Emphasis is on the political, social, and cultural developments of the major civilizations and on the interactions between those civilizations.

HIST 116 World History II (3)

(Fulfills the historical or international perspective requirement.) A survey of Western and non-Western civilizations and cultures from 1500 to the present. Emphasis is on the political, social, and cultural developments of the major civilizations; the interactions between those civilizations; and the development of a global community since 1500.

HIST 156 History of the United States to 1865 (3)

A survey of the United States from colonial times to the end of the Civil War. The establishment and development of national institutions are traced. Students may receive credit for only one of the following courses: HIST 156 or HUMN 119.

HIST 157 History of the United States Since 1865 (3)

A survey of economic, intellectual, political, and social developments since the Civil War. The rise of industry and the emergence of the United States as a world power are emphasized. Students may receive credit for only one of the following courses: HIST 157 or HUMN 120.

HIST 305 The Pacific Century (3)

May be applied toward a specialization in behavioral and social sciences. Fulfills the historical or international perspective requirement.) An interdisciplinary introduction to contemporary East and Southeast Asia that surveys the political, economic, and cultural changes of the past 100 years—from colonialism to nationalism and from military clashes to economic problems. Focus is on understanding the sources of the region's dynamics and the roots of its diversity. The contrasting themes of tradition and modernization, as well as American attitudes of isolationism and expansion toward Asia, are explored. The historic and geographic context for both the development of the Pacific basin and its impact on the global community is illuminated. Video programs from the series "The Pacific Century" are integrated with the course materials. Students may receive credit for only one of the following courses: ASTD 305, BEHS 305, or HIST 305.

HIST 306 History of Religion in America (3)

A history of religion, religious movements, and churches in America from the early colonial period to the present. Special attention is paid to the relations between church and society.

HIST 309 Introduction to Historical Writing (3)

Recommended: 12 credits in history courses. A study of the methods and problems of historical research and presentation. Assignments include a major research paper.

HIST 316 Advanced Topics in Regional and National History (1–3)

An in-depth study of the histories of specific regions or nations. Assignments include advanced reading and research. Students may receive credit for a given topic in either HIST 216 or HIST 316 only once.

HIST 317 Advanced Topics in Urban and Local History (1–3)

An in-depth study of the histories of specific cities or localities. Assignments include advanced reading and research. Students may receive credit for a given topic in either HIST 217 or HIST 317 only once.

HIST 318 Advanced Topics in Military History (1–3)

An in-depth study of specific battles, campaigns, or wars. Assignments include advanced reading and research. Students may receive credit for a given topic in either HIST 218 or HIST 318 only once.

HIST 319 Special Topics in History (3)

An in-depth study of specific topics, themes, events, or problems in history. Assignments include advanced reading and research. Students may receive credit for a given topic in either HIST 219 or HIST 319 only once.

HIST 326 The Roman Republic (3)

(Fulfills the historical or international perspective requirement.) A study of ancient Rome during the period 753 to 44 B.C., from its founding to the assassination of Julius Caesar. Focus is on Rome's conquest of the Mediterranean world, on the social and political pressures that led to that conquest, and on the consequent transformation and decline of the republic. Students may receive credit for only one of the following courses: HIST 326 or HIST 421.

HIST 327 The Roman Empire (3)

(Fulfills the historical or international perspective requirement.) A study of Roman history from Augustus to Heraclius, from 44 B.C. to A.D. 641. Topics include the imperial court and government, the diversity of culture in the provinces and cities and the progress of Romanization, Roman religion and its transformation in late antiquity, and the Roman army and defense of the frontiers. Students may receive credit for only one of the following courses: HIST 327 or HIST 421

HIST 335 Revolutionary Europe (3)

(Fulfills the historical or international perspective requirement.) A study of Europe from 1715 through the French Revolution and the Napoleonic period. Focus is on intellectual, social, and cultural movements in revolutionary Europe.

HIST 336 Europe in the 19th Century: 1815 to 1919 (3)

(Fulfills the historical or international perspective requirement.) A study of the political, economic, social, and cultural development of Europe from the Congress of Vienna to World War I.

HIST 337 Europe in the World Setting of the 20th Century (3)

(Fulfills the historical or international perspective requirement.) An investigation of the political, economic, and cultural developments of 20th-century Europe, with special emphasis on the factors involved in the two world wars and their worldwide effects and significance.

HIST 341 African Civilization to 1800 (3)

Fulfills the historical or international perspective requirement.) A survey of the history of Africa from earliest times to 1800. Topics include the origins of African societies, Nile Valley civilization, medieval African states and societies, Islam, oral tradition, African slavery and the slave trade, and early African-European interactions. Students may receive credit for only one of the following courses: HIST 122 or HIST 341.

HIST 342 Sub-Saharan Africa Since 1800 (3) (Fulfills the historical or international perspective requirement.) An overview of changes in sub-Saharan African societies since 1800. Topics include European conquest and African resistance in the late 19th century, colonial states and societies, African nationalism, and decolonization and the era of independence. Struggles over social, economic, and political changes are emphasized.

HIST 353 Latin American History I (3)

(Fulfills the historical or international perspective requirement.) A survey of Latin America from late pre-Columbian civilizations and cultures to the wars of independence.

HIST 354 Latin American History II (3)

Fulfills the historical or international perspective requirement.) An overview of the political culture of the republics of Latin America. Topics include nation building, modernization, race relations, economic development, gender, reform and revaluation, and relations between the United States and Latin America. Students may receive credit for only one of the following courses: HIST 251 or HIST 354.

HIST 360 America in the Colonial Era: 1600 to 1763 (3)

An investigation of the founding of the English colonies in America. Topics include the European backgrounds of the colonies, the reasons for the instability of colonial society, the emergence of stable societies after 1689, and the development of colonial regionalism. Also discussed are political institutions, social divisions, the economy, religion, education, and urban and frontier problems in the 18th century.

HIST 361 America in the Revolutionary Era: 1763 to 1815 (3)

A consideration of the background and direction of the American Revolution and the early development of the nation through the War of 1812. Emphasis is on how the Revolution shaped American political and social development, including the creation of a new government under the Constitution and the challenges facing the new nation.

HIST 362 Ante-Bellum America: 1815 to 1861 (3)

An examination of the strong sense of nationalism in the United States after the War of 1812 and its transformation into the sectionalism that led to the Civil War. Issues contributing to North/South antagonism, particularly slavery, are discussed. Other issues include Jacksonian democracy; capitalism; racism; immigration; Manifest Destiny; and religious, social, and intellectual movements.

HIST 363 Civil War and the New Industrial Society in the United States: 1860 to 1900 (3)

A survey of sectional and class conflicts and their effects on American life and institutions from the Civil War through the Gilded Age. The social, economic, and political reconstruction of the Union is analyzed as it affected and was affected by industrialization, urbanization, and technological changes.

HIST 364 Emergence of Modern America: 1900 to 1945 (3)

A study of the emergence of modern American institutions and identities in the years 1900–45. Topics include the presidencies of McKinley, Roosevelt, Taft, and Wilson; the world wars; the Great Depression; and the period of the New Deal. Special consideration is also given to emerging issues such as the role of women and African Americans, corporate enterprises, and the welfare state.

HIST 365 Recent America: 1945 to the Present (3)

A survey of U.S. history from the presidencies of Truman and Eisenhower to the present. Topics include 1960s' radicalism, the Cold War, Vietnam, Watergate, and changes in American society.

HIST 376 Women and the Family in America to 1870 (3)

A commentary on the diversity of experience that has confronted American women and families. Three motifs are traced throughout the history of interactions between the family and the social environment: changes and continuities in the division of labor on the basis of gender, the resilience of the family in response to social and economic change, and the relationship between ideals and realities in family life. Students may receive credit for only one of the following courses: HIST 376 or HUMN 366.

HIST 377 Women in America Since 1870 (3)

An examination of the changing role of women in working-class and middle-class families. Topics include the effects of industrialization on women's economic activities and status and women's involvement in political and social struggles, including those for women's rights, birth control, and civil rights. Students may receive credit for only one of the following courses: HIST 211, HIST 367, or HIST 377.

HIST 381 America in Vietnam (3)

(May be applied toward a specialization in behavioral and social sciences. Fulfills the historical or international perspective requirement.) A multidisciplinary interpretation of the complex involvement of the United States in Vietnam. Key themes include foreign policies after World War II that led to the Vietnam War, the political and military objectives of the United States, domestic responses in the United States to military involvement, and the lessons and legacies of the war. Students may receive credit for only one of the following courses: BEHS 337 or HIST 381.

HIST 460 African American Life: 1500 to 1865 (3)

An examination of African American communities in the Western Hemisphere from 1500 to 1865. Topics include the origins of African American communities in the Western Hemisphere and the resulting diversity of experiences and cultures. Emphasis is on African American communities in North America, especially the evolution of those communities and their cultures.

HIST 461 African American Life Since 1865 (3)

An examination of African Americans in the United States since the abolition of slavery. Emphasis is on 20th-century developments, including the migration from farm to city, the growth of the civil rights movement, and the race question as a national problem.

HIST 462 The U.S. Civil War (3)

A study of the U.S. Civil War. Topics include causes of the war; sectional politics and secession; resources and strategies of the Confederacy and the Union; the changing character of the war; emancipation and its consequences; the economic, social, and political conditions of the home front; and the wartime origins of Reconstruction.

HIST 463 U.S. Military History Since 1865 (3)

An examination of the evolution of the U.S. armed forces since the Civil War and the efforts to adapt to changing roles and situations during the 20th century. Topics include the role of the armed forces in U.S. diplomatic relations, the social and economic impact of war and peace, and the changing images of the military in American culture. Students may receive credit for only one of the following courses: HIST 419N or HIST 463.

HIST 466 The Cold War (3)

An introduction to the history of the Cold War, which divided the world along ideological, economic, political, and military lines for more than 40 years. Focus is on the chronology of the struggle between the United States and the Soviet Union, with the former leading the NATO nations and the latter leading the Warsaw Pact nations. Students may receive credit for only one of the following courses: HIST 320, HIST 419I, or HIST 466.

HIST 480 History of Traditional China (3)

(Fulfills the historical or international perspective requirement.) A study of the history of China from earliest times to 1644. Emphasis is on the development of Chinese institutions that have molded the life of the nation and its people.

HIST 481 History of Modern China (3)

(Fulfills the historical or international perspective requirement.) A study of the history of modern China from 1644 to the present. Focus is on the origins of the Western influence in China and the various stages of the Chinese reaction.

HIST 482 History of Japan to 1800 (3)

(Fulfills the historical or international perspective requirement.) An examination of traditional Japanese civilization from the age of Shinto mythology and the introduction of continental learning to the rule of military families. Topics include transition to a money economy and the creation of a town-based culture. Political, economic, religious, and cultural history is also covered.

HIST 483 History of Japan Since 1800 (3)

(Fulfills the historical or international perspective requirement.) A survey of Japan's renewed contact with the Western world and its emergence between 1800 and 1931 as a modern state, an industrial society, and world power. Japan's road to war, the period of occupation, and the era of recovery are covered, from 1931 to the present.

HIST 486A Internship in History Through Co-op (3)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in history. At least 12 hours per week must be devoted to new tasks for a total of 180 hours during the Co-op session; four new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to history and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

HIST 486B Internship in History Through Co-op (6)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in history. At least 20 hours per week must be devoted to new tasks for a total of 300 hours during the Co-op session; five to eight new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to history and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

HIST 499 Independent Study in History (1–3)

Prerequisite: 6 credits in upper-level history courses. Directed independent study of topics of special interest not covered by regularly scheduled courses in history. May be repeated to a maximum of 6 credits when topics differ.

HUMN 119 American Adventure (3)

(Fulfills the historical perspective requirement.) A survey of the early history of the United States, covering the discovery of the New World through the Civil War and Reconstruction. Emphasis is on social history, including the effects of political and social events on women, children, the family unit, African Americans, and Native Americans. The clash between European and Native American cultures, the violence of the revolution, and the trials and tribulations of the early pioneers are explored. Materials from the telecourse "Shaping America" are integrated with the course. Students may receive credit for only one of the following courses: HIST 156 or HUMN 119.

HUMN 120 America in Perspective (3)

(Fulfills the historical perspective requirement.) A survey of the second hundred years of the history of the United States, beginning in 1877 with the closing of the American frontier and the move into industrialization. Crucial events and issues in recent history—including the Great Depression, the rise of big business, Roosevelt's New Deal, World Wars I and II, the Cold War, the Vietnam War, the civil rights movement, and the end of the Cold War—are reviewed. The complex forces and events that have determined the course of modern American history and shaped America as it is today are traced and interpreted. Materials from the telecourse "America in Perspective" are integrated with the course. Students may receive credit only once under this course number and for only one of the following courses: HIST 157 or HUMN 120.

HUMN 310 Business and Professional Ethics (6)

(Fulfills the civic responsibility requirement.) An examination of the relationship between business and ethics. Various views of what is right and good for people in a corporate society are applied to business practices, institutions, and actions. The moral contexts of both corporate decisions and personal decisions are considered. Concepts of ethics and economic justice are introduced. The nature of the corporation is discussed, with particular emphasis on corporate social responsibility. Examples of the moral dilemmas of conducting business include issues and cases in the areas of hiring procedures; employees' rights and duties (in relation to such matters as privacy, health and safety, and whistle-blowing versus loyalty); professional responsibility; ethics in advertising; consumerism in relation to product liability; multinational operations; and ethics as related to the common environment.

HUMN 334 Understanding Movies (3)

An analysis of one of the most important means of artistic expression of the 20th century. The goal is to acquire a deeper understanding of the aesthetic qualities of film by considering the stylistic elements of film as it has evolved throughout the century and weighing the special relationship between cinema and literature. Students may receive credit for only one of the following courses: HUMN 334 or HUMN 498D.

HUMN 336 Ideas Shaping the 21st Century (6)

(Fulfills the civic responsibility or historical perspective requirement.) An overview of predominating ideas and philosophies that may govern and alter humanity and this planet in the early 21st century. Ideas and ways of living are evaluated insofar as they reveal the nature of intelligence and at the same time determine the uses of this planet. These include the rise of science, religions, and technoconsciousness; the development of systems of communication; prevailing perceptions of justice and human relationships; and "quality of life" as expressed in architecture and the arts.

HUMN 339 Aging in Literature, Film, and the Arts (3)

A critical examination of the experience of aging as portrayed in literature, film, and the arts in different countries. The experiences of older adults are explored as they relate to identity, intimacy, friendships, prejudice or discrimination, family, intergenerational relationships, health, independence, social roles, grieving, and end-of-life issues.

HUMN 350 The Religious Quest (6)

(Fulfills the historical or international perspective requirement.) A comparative exploration of aspects of several religions, emphasizing specific forms of expression and practice. The religions chosen for study are the major faiths of the world in terms of numbers of adherents: Hinduism, Buddhism, Judaism, Christianity, Islam, and religions of China and Japan. An interdisciplinary approach is used to deal with the religions in their historical, social, literary, artistic, philosophical, and theological aspects.

HUMN 351 Myth and Culture (3)

(Fulfills the historical or international perspective requirement.) A presentation of reflections on the interrelations of myth, religion, and culture in which myths are evaluated as embodiments of ethnic and universal ideas. Religion is analyzed within American and non-American cultures. Ideas and symbols from mythology that provide background for literature, music, and art are introduced. Materials from the telecourse "Joseph Campbell: Transformations of Myth Through Time" are integrated with the presentation.

HUMN 360 Global Environmental Change (6)

Yields 3 natural science credits and either 3 humanities credits or 3 social science credits. Fulfills the civic responsibility or international perspective requirement.) An in-depth examination of environmental changes that many believe are caused by human adaptations to Earth's natural resources, and the possible effects on both the global biosphere and the human condition. Scientific and social issues are explored through various questions: Is global warming really happening? Will sea levels rise? What are the consequences of massive deforestation? What can be done when there is so much scientific uncertainty and global social diversity? The concept of sustainability, as it applies to human interactions with the environment, is emphasized. Students may receive credit for only one of the following courses: BEHS 361, GNSC 361, HUMN 360, or NSCI 361.

HUMN 375 Social History of Washington, D.C. (3)

(Fulfills the historical perspective requirement.) A study of the uniqueness of Washington, D.C., through its artistic, architectural, cultural, social, political, and economic history. Washington is examined as a center of power and decision making as well as the domicile of some of the nation's least-empowered citizens; home to monuments, museums, and statuary commemorating visionary leaders as well as a seedbed of avant-garde artistic movements; and as an urban center built upon limited industrial growth. Students may receive credit for only one of the following courses: HIST 351, HUMN 375, or HUMN 498C.

HUMN 398 Advanced Special Topics in Humanities (1–6)

A study of selected topics in the humanities. Assignments include advanced reading and research. Students may receive credit for a given topic in either HUMN 198 or HUMN 398 only once.

HUMN 399 Independent Study in Humanities (1–6)

(For advanced students.) Directed independent study of topics of special interest not covered by regularly scheduled courses. May be repeated to a maximum of 6 credits when topics differ.

HUMN 442 Contemporary Sexual Ethics (3)

An inquiry into ethical considerations of contemporary sexual behavior. Topics include the changing dynamics between male and female (modes, expectations, and codes); the increase of sexual activity and freedom (premarital, postmarital, and extramarital); laws, such as those concerning abortion, homosexuality, and rape (whether outside or within marriage); the sexual rights of women; and speculations as to ethical dimensions of human sexual activity in the future.

HUMN 486A Internship in Humanities Through Co-op (3)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in the humanities. At least 12 hours per week must be devoted to new tasks for a total of 180 hours during the Co-op session; four new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to the humanities and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

HUMN 486B Internship in Humanities Through Co-op (6)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in the humanities. At least 20 hours per week must be devoted to new tasks for a total of 300 hours during the Co-op session; five to eight new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to the humanities and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

HRMN 300 Human Resource Management (3)

A basic study of human resource management. Major aspects covered are human resource planning and the recruitment, selection, development, compensation, and appraisal of employees. Scientific management and unionism are explored insofar as these historical developments affect the various personnel functions. Students may receive credit for only one of the following courses: BMGT 360, HRMN 300, or TMGT 360.

HRMN 302 Organizational Communication (3)

Prerequisite: BMGT 364 or equivalent. A study of the structure of communication in organizations. Problems, issues, and techniques of organizational communication are analyzed through case histories, exercises, and projects. The examination of theory and examples is intended to improve managerial effectiveness in communication and negotiation. Students may receive credit for only one of the following courses: BMGT 398N, HRMN 302, MGMT 320, MGST 315, or TEMN 315.

HRMN 362 Labor Relations (3)

A study of the development and methods of organized groups in industry, with reference to the settlement of labor disputes. Labor unions and employer associations involved in arbitration, mediation, and conciliation are analyzed from an economic as well as a legal standpoint. Specific attention is focused on collective bargaining, trade agreements, strikes, boycotts, lockouts, company unions, employee representation, and injunctions. Students may receive credit for only one of the following courses: BMGT 362 or HRMN 362.

HRMN 363 Negotiation Strategies (3)

Prerequisite: HRMN 362 or equivalent. An introduction to methods and processes of negotiation and collective bargaining. Negotiating strategies related to selected products, services, and management issues are explored. Case studies and exercises in negotiation are used to examine various strategies. Students may receive credit for only one of the following courses: BMGT 398W, HRMN 363, or MGMT 398W.

HRMN 365 Conflict Management in Organizations (3)

(Fulfills the civic responsibility requirement.) An introduction to processes observed in and management of conflict within organizations. Topics include general models of conflict, methods of managing conflict, and issues related to disagreements in organizational contexts. Students may receive credit for only one of the following courses: BMGT 398X, HRMN 365, or MGMT 398X.

HRMN 367 Organizational Culture (3)

Prerequisite: BMGT 364 or equivalent. An examination of the nature, definitions, theories, and aspects of organizational culture. Analysis covers patterns of behavior and their relationship to organizational culture, especially the impact of the organization's business on employee behavior and culture. The role of nationality, gender, and race within organizational culture is discussed. Implications of addressing organizational challenges, as well as theory versus practice, are evaluated. The relative roles of the individual, groups, and the organization in a cultural context are explored. Students may receive credit for only one of the following courses: BMGT 398T or HRMN 367.

HRMN 390 Contemporary Compensation Management (3)

Prerequisite: HRMN 300 or equivalent. An exploration of alternative compensation philosophies. Topics include strategies of employee compensation, incentives to productivity, employee motivation, and performance appraisal. Strategies, such as incentive cash and/or stock compensation programs, employee ownership, and nonmonetary rewards, are discussed and evaluated in varying situations. Techniques are discussed for identifying and classifying critical job components and observable standards and measures, setting compensation for job performance, and developing an executive compensation program. The interrelationship between compensation, motivation, performance appraisal, and performance within the organization is also examined Students may receive credit for only one of the following courses: BMGT 388L or HRMN 390.

HRMN 392 Stress Management in Organizations (1)

An exploration of the changing nature of work and stress in organizations, due to a business emphasis on productivity and personal and family demands. Focus is on the causes of stress and methods of managing stress in organizational settings. Topics include interactions, performance objectives, social structure, job characteristics, and other factors causing stress in organizations. Consideration is given to political climate, pressure to achieve, interpersonal conflict, and time pressures. Practical approaches to reduce stress at work are discussed. Students may receive credit for only one of the following courses: BMGT 398Y, HRMN 392, MGMT 398Y, or MGST 398H.

HRMN 394 Motivation, Performance, and Productivity (3)

Prerequisite: BMGT 364 or equivalent. An examination of the challenges of motivating employees. Topics include effective principles for job design, theories and practices of successful leadership, the setting of goals and objectives, the development of reward systems, and the attributes of effective managerial communication. The causes and impact of performance problems and methods for measuring management practices are explored. Students may receive credit for only one of the following courses: BMGT 398S or HRMN 394.

HRMN 400 Human Resource Management: Analysis and Problems (3)

Prerequisite: HRMN 300 or equivalent. A study of the role of human resource management in the strategic planning and operation of organizations, performance appraisal systems, and compensation and labor/management issues. The influence of federal regulations (including equal opportunity, sexual harassment, discrimination, and other employee-related regulations) is analyzed. The critical evaluation of human resource problems is supported with a review of research findings, readings, discussions, case studies, and applicable federal regulations. Students may receive credit for only one of the following courses: BMGT 460, HRMN 400, or TMGT 360.

HRMN 404 Managing Diversity in Organizations (3)

Prerequisite: BMGT 364 or equivalent. An examination of the major forces in technological and industrial change, with emphasis on workforce diversity. Topics include issues related to valuing and managing diversity, problem solving, team building, customer service, strategic management, organizational adaptability, and changing technologies, markets, and customers. Students may receive credit for only one of the following courses: BMGT 498G, HRMN 404, or MGMT 498G.

HRMN 406 Employee Training and Development (3)

Prerequisite: BMGT 364 or equivalent. An examination of employee training and human resource development in various organizations. Topics include the development, administration, and evaluation of training programs; employee development; career development; and organizational change. Issues in employee development (including assessment of employee competencies, opportunities for learning and growth, and the roles of managers in employee development) are explored. Students may receive credit for only one of the following courses: BMGT 498I, HRMN 406, or MGMT 498I.

HRMN 408 Employment Law for Business (3)

Fulfills the civic responsibility requirement.) A conceptual and functional analysis of the legal framework and principles of industrial and employment relations, with special emphasis on discrimination in the workplace. Topics include wrongful discharge; discrimination based on race, sex, age, and disability; testing and performance appraisal; labor/management issues; and employee benefits. Salient global issues are also examined. Assignments may include conducting relevant research using computer databases and networks (such as LEXIS-NEXIS and the Web) as well as other methods for accessing information. Students may receive credit for only one of the following courses: BMGT 468, BMGT 498G, HRMN 408, or MGMT 498G.

HRMN 462 Labor Relations Law (3)

A conceptual and functional analysis and application of legal principles relevant to labor/management relations and the collective bargaining process in both the domestic and global industrial and public sectors. Topics include the historical and statutory development of the National Labor Relations Act and other related statutes; union organization and unfair labor practices; negotiation and administration of the collective bargaining agreement; economic pressures, including strikes, pickets, boycotts, and lockouts; arbitration and conflict resolution; public-sector regulation; and global labor/management issues. Students may receive credit for only one of the following courses: BMGT 462 or HRMN 462.

HRMN 463 Public-Sector Labor Relations (3)

Prerequisite: HRMN 362 or equivalent. A study of the development and structure of labor relations in public-sector employment. The responses of federal, state, and local governments to unionization and collective bargaining are analyzed. Case studies of governmental units, public unions, and union issues are used to demonstrate and reinforce principles. Students may receive credit for only one of the following courses: BMGT 463 or HRMN 463.

HRMN 486A Internship in Human Resource Management Through Co-op (3)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in human resource management. At least 12 hours per week must be devoted to new tasks for a total of 180 hours during the Co-op session; four new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to human resource management and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

HRMN 486B Internship in Human Resource Management Through Co-op (6)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in human resource management. At least 20 hours per week must be devoted to new tasks for a total of 300 hours during the Co-op session; five to eight new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to human resource management and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

HRMN 490 International Human Resource Management (3)

Fulfills the international perspective requirement.) Prerequisite: HRMN 300 or equivalent. A survey of international labor markets, workplaces, multinational alliances, global corporate cultures, and national cultural differences as elements of international human resource planning. Fundamental human resource issues such as compensation, benefits, productivity, training, employment security, and unions are analyzed within an international context. Case studies of multinational, international, and global companies are used to demonstrate and reinforce principles. Students may receive credit for only one of the following courses: BMGT 498K or HRMN 490.

HRMN 494 Strategic Human Resource Management (3)

Prerequisite: HRMN 300 or equivalent. An exploration of methods for aligning human resource management functions and activities with corporate strategic goals. The case-study method is used to illustrate and analyze principles of integration. Topics include human resource planning and diversity; strategies for recruitment, selection, and development; equal opportunity, sexual harassment, and discrimination policies; compensation planning; appraisal system planning; and strategic labor/management issues. The influence of changes in legislation and federal regulation, new forms of business, and the growth of teleworking is discussed. Students may receive credit for only one of the following courses: BMGT 388K or HRMN 494.

IFSM 201 Introduction to Computer-Based Systems (3)

An overview of computer information systems in which hardware, software, procedures, systems, and human resources are explored in relation to their integration and application in business and other segments of society. Students may receive credit for only one of the following courses: BMGT 301, CAPP 101, CAPP 300, CMST 300, IFSM 201, or TMGT 201.

IFSM 204 History and Future Trends of Computing (3)

(Fulfills the historical perspective requirement.) A historical account of the pioneers of computing and the rise of the computer industry (as well as related industries). Although technical and institutional developments are the focus, developments are explained in a broader historical context. Factors such as the state of scientific knowledge, economic conditions, defense requirements, the nature of business and financial systems, and governmental policy are taken into consideration.

IFSM 300 Information Systems in Organizations (3)

Prerequisite: IFSM 201 or equivalent. An overview of information systems, their role in organizations, and the relation of information systems to the objectives and structure of an organization. Human aspects of computing, types of computer systems, and general theory of systems are discussed.

IFSM 302 Workplace Productivity (3)

Prerequisite: IFSM 201 or equivalent. A survey of techniques for improving the productivity of practices and procedures in the work-place. Teaming (e.g., encouraging employees' participation in group activities, brainstorming, and making meetings more effective) and problem solving (e.g., simplifying work; charting work-flow processes; diagramming causes and effects; and using Pareto analysis, histograms, and total quality management) are the two major approaches emphasized.

IFSM 303 Human Factors in Information Systems (3)

Prerequisite: IFSM 201 or equivalent. A general survey of the application of human factors to the design and use of information systems. The history, evolution, and current state of the human-computer interface are covered. The contributions of psychology, engineering, and physiology to the development of ergonomics are described.

IFSM 304 Ethics in the Information Age (3)

(Fulfills the civic responsibility requirement.) Prerequisite: IFSM 201 or equivalent. An introduction to information systems as used to provide information for decision making in a democratic society. The philosophy, techniques, and ethical considerations involved in evaluating information systems are discussed.

IFSM 307 COBOL Programming (3)

Prerequisite: CMIS 102 or equivalent. A comprehensive study of COBOL concepts and structured programming methodology and problem solving. Practice in designing and implementing control logic, file structures, and user interfaces for business applications is provided. A programming style is developed that minimizes errors and facilitates modification and maintenance. The basic concepts of object-oriented COBOL are introduced. Students who have completed both IFSM 296 and IFSM 297 may not receive credit for IFSM 307.

IFSM 310 Software and Hardware Concepts (3)

Prerequisites: IFSM 201 and MATH 012, or equivalent. A survey of computer systems. Emphasis is on the interrelationships of hardware architecture, system software, and application software. The architectures of processors and storage systems are explored. Implications for system software design are covered. The effects of the design of hardware and system software on the development of application programs in a business environment are discussed. Students may receive credit for only one of the following courses: CMIS 270, CMIS 310, CMSC 311, or IFSM 310.

IFSM 320 Office Automation (3)

Prerequisite: IFSM 201 or equivalent. An examination of office information systems and decision-support systems as emerging critical elements of data and information systems for business uses. Emphasis is on information-processing considerations at the systems level, including analysis and management of support activities. Interfaces between machines and their users are discussed; current and future technological trends are assessed, and their effects on data processing and the office environment are traced.

IFSM 390 Multimedia Design and Evaluation for Information Systems Managers (3)

Prerequisite: IFSM 300. An investigation of microcomputer-based multimedia systems and their application. Emphasis is on concepts and techniques for creating professional presentations using sound, clip art, video, and text. The Internet is introduced and used as a resource for multimedia projects. Hardware selection is discussed. The effects of multimedia presentations and the social issues involved in their use are examined.

IFSM 398W Wireless Telecommunications (3)

An analysis of technical and managerial perspectives on basic concepts and applications in wireless telecommunication systems. The implications of the regulatory environment and communications standards on transmission of voice and data are examined. Other topics include an overview of second generation (2G), third generation (3G), and global system of mobile (GSM) wireless communications, code-division multiple access (CDMA), and trends in wireless communication.

IFSM 410 Database Concepts (3)

Prerequisites: Programming experience and IFSM 300. An introduction to the design and management of database systems in a business environment. Topics include the role of databases in organizations; the management of information as a critical business resource; types and functions of database management systems; conceptual data modeling and entity/relationship and semantic data models; and the fundamental principles of relational and object-oriented database design. The implementation and maintenance of database management systems and the role of the database administrator are discussed. Students may receive credit for only one of the following courses: CMIS 320 or IFSM 410.

IFSM 411 SQL (3)

Prerequisite: IFSM 410, CMIS 320, or equivalent. In-depth practice
using Structured Query Language (SQL), the most common database manipulation language. The various uses of SQL are illustrated through business-related case studies. The underlying theory of relations (including relational operators, keys, and entity and referential integrity) is discussed. Students may receive credit for only one of the following courses: CMIS 420, IFSM 411, or IFSM 498I.

IFSM 420 Advanced Database Concepts (3)

Prerequisite: IFSM 411, CMIS 320, or equivalent. Investigation and application of advanced database concepts, including database administration, database technology, and the selection and acquisition of database management systems. An intensive practicum in data modeling and system development in a database environment is provided. An overview of future trends in data management is also included.

IFSM 425 Decision Support and Expert Systems (3)

Prerequisite: IFSM 300. An analysis of information support systems that serve the management user at all levels of the decision-making process. The information provided by such systems is derived from multiple models and databases within and/or external to an organization. Theoretical concepts are related to examples from specific organizations. Research on the development of expert systems and commercially available applications is included.

IFSM 430 Information Systems and Security (3)

Prerequisite: IFSM 300 or equivalent. A survey covering aspects of establishing and maintaining a practical information-security program. The security aspects and implications of databases, telecommunication systems, and software are examined, along with techniques used to assess risks and discover abuses of systems.

IFSM 432 Disaster Recovery Planning (3)

Prerequisite: IFSM 300 or equivalent. A study of disaster recovery and emergency planning as applied to the information-systems function in corporations. Topics include current concepts, skills, and managerial controls needed to protect a company's most important asset: information. Students may receive credit for only one of the following courses: IFSM 432 or IFSM 498N.

IFSM 435 Information Security and E-Commerce (3)

Prerequisite: IFSM 300 or equivalent. An introduction to the four essential elements of safe electronic commerce: the data transaction, the server, the client, and the host network. Topics include encryption, firewalls, transaction security, securing Web commerce, and Web security risk management. Students may receive credit for only one of the following courses: IFSM 435 or IFSM 498H.

IFSM 438 Project Management (3)

Prerequisite: IFSM 300 or equivalent. An exposition of planning, scheduling, and controlling a system project during its life cycle. The use of project-management techniques such as PERT (Project Evaluation and Review Technique) and Gantt charts is examined, along with other techniques of planning, scheduling, and controlling projects. Demonstrations and exercises in using project-management software are provided. Students may receive credit for only one of the following courses: IFSM 438 or TMGT 430.

IFSM 446 Java-Based Information Systems Applications (3)

Prerequisites: Programming experience and IFSM 410. An introduction to the use of Java in designing and maintaining interconnectivity, accessing information, and supplying online information to clients, vendors, and remote staff. Strategies for protecting and securing Internet/intranet systems are also examined. Projects include building a Java-based application, such as one part of an electronic commerce system. Students may receive credit for only one of the following courses: IFSM 446 or IFSM 498W.

IFSM 450 Telecommunication Systems in Management (3)

Prerequisites: IFSM 300 and 310. An analysis of technical and managerial perspectives on basic concepts and applications in telecommunication systems. An overview of data communication protocols and standards; local area networks, wide area networks, and internet works; and trends in telecommunications is provided. The implications of the regulatory environment and communications standards on transmission of voice, data, and image are examined. Students may receive credit for only one of the following courses: CMIS 370, CMSC 370, or IFSM 450.

IFSM 455 IT Infrastructure of E-Commerce (3)

Prerequisites: IFSM 300 and 310. An introduction to both the theory and practice of doing business over the Internet and World Wide Web. Topics include the general structure, protocols, utility programs, popular Internet applications, and Web client and server architecture that support the Internet and electronic commerce. The technologies of electronic commerce (including software, security issues, and payment systems) are addressed. Project planning and management and customer relationship management issues are also explored. Students may receive credit for only one of the following courses: IFSM 455 or IFSM 498F.

IFSM 461 Systems Analysis and Design (3)

Prerequisite: IFSM 300. A study of the methods used in analyzing needs for information and in specifying requirements for an application system. Implementation of the operational system, integration of computer technology, and aspects of organizational behavior in the design support system are examined. Topics include the concept of the system life cycle, the iterative nature of the processes of analysis and design, and the methodology for developing a logical specification and physical design for an operational system. Students may receive credit for only one of the following courses: IFSM 436, IFSM 460, or IFSM 461.

IFSM 466 Object-Oriented Systems Development (3)

Prerequisites: IFSM 300 and 460. An introduction to object-oriented analysis and design, including object-oriented modeling and process standards and use of the Unified Modeling Language (UML). The object-oriented development life cycle and the benefits and problems associated with this methodology are investigated. Key UML concepts and diagrams, use cases, scenarios, class diagrams, sequence diagrams, and state charts are addressed.

IFSM 486A Internship in Information Systems Management Through Co-op (3)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in information systems management. At least 12 hours per week must be devoted to new tasks for a total of 180 hours during the Co-op session; four new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

IFSM 486B Internship in Information Systems Management Through Co-op (6)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in information systems management. At least 20 hours per week must be devoted to new tasks for a total of 300 hours during the Co-op session; five to eight new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to information systems management and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

IFSM 495 Systems Engineering (3)

Prerequisite: IFSM 300; at least 9 credits in upper-level computing courses recommended. A project-oriented capstone study of systems engineering. Focus is on designing and developing the logical specifications for a system, then tracking the design through the analysis and implementation phases. Research and documentation techniques are stressed.

IFSM 498 Special Topics in Information Systems Management (1–3)

A seminar on topics in the design and implementation of information-processing systems.

IFSM 498D Data Mining: Introduction and Application (3)

Prerequisites: IFSM 410 and a working knowledge of statistics and Structured Query Language. An introduction to data mining with hands-on computer research using state-of-the-art data-mining tools. Emphasis is on the process used to successfully conduct a data-mining project, along with real-world applications and examples. Techniques studied include decision trees, memory-based reasoning, neural networks, affinity analysis, link analysis, and clustering. Commercially available data-mining tools and products are used to explore, compare, and contrast technique strengths and weaknesses.

IFSM 498E Enterprise Network Management (3)

Prerequisite: IFSM 450. An introduction to network and enterprise management. A detailed analysis of Simple Network Management Protocol (SNMP), the technology upon which most enterprise management systems are based, is provided. The strengths and weaknesses of commercial applications currently underpinned by SNMP are explored. Emphasis is on selecting the appropriate application for a workplace.

IFSM 498O PL/SQL (3)

Prerequisite: IFSM 411 (or equivalent SQL programming experience) and knowledge of the Oracle SQL*Plus environment. An in-depth study of the use of programming language/structured query language (PL/SQL) to develop enterprise-level database applications in industry. Topics include application programs, graphical user interface (GUI) forms, and standard third-generation language (3GL) programming constructs (such as IF-THEN-ELSE, LOOPS, record-at-a-time processing, and error handling).

IFSM 498S Seminar: Issues in Computer Technology (3)

Prerequisite: 9 credits in upper-level IFSM, CMIS, or CMSC courses. An examination of selected recent developments in information systems technology. Issues, strategies, and policy developments for managing the use of information technology in today's changing environment are investigated via a seminar format. Emphasis is on the implementation of new technology, its impact on the organization, and the manager's role in the process.

JOUR 201 Writing for the Mass Media (3)

An introduction to writing news and feature articles for print, broadcast, and online media. Emphasis is on writing, from mechanics (grammar, spelling, punctuation, and journalism style) to content (accuracy, completeness, audience, and read-ability) and on reporting.

JOUR 202 Editing for the Mass Media (3)

Prerequisite: JOUR 201. Presentation of the basic editing skills that apply to all mass media. Hands-on practice in copyediting, fact checking, headline writing, photo selection, and page layout is provided. Students may receive credit for only one of the following courses: JOUR 202 or JOUR 310.

JOUR 320 News Reporting (3)

Prerequisite: JOUR 202. A survey of the principles and practices of news reporting. Emphasis is on gathering news for all the media and on covering news beats and other news sources. Researching a news story for accuracy, comprehensiveness, and interpretation is covered.

JOUR 330 Public Relations Theory (3)

Prerequisite: JOUR 201. A study of the historical development and contemporary status of public relations in business, government, associations, and other organizations. Communication theory and social science methodology are studied as they apply to the research, planning, communication, and evaluation aspects of the public relations process.

JOUR 331 Public Relations Techniques (3)

Prerequisite: JOUR 330. A review of the techniques of public relations. Emphasis is on news releases, publications and printed materials, speeches, special events, and audiovisual media. Techniques are applied in laboratory and field projects. Students may receive credit only for only one of the following courses: BMGT 398U or JOUR 331.

JOUR 334 Public Relations Programs (3)

Prerequisite: JOUR 330. Analysis of eight major programs typically carried out by public relations: employee relations, media relations, financial relations, member relations, governmental relations, community relations, fund raising, and dealing with an activist public.

JOUR 340 Advertising Communication (3)

Prerequisite: JOUR 202. An exploration of advertising within mass communication and an evaluation of its role in the public-information system of the United States. The application of communication theory and research methods to the research, planning, communication, and evaluation aspects of global advertising are discussed.

JOUR 341 Advertising Techniques (3)

Prerequisite: JOUR 340. A study of theory and practice in writing and producing advertisements for the print and broadcast media. Opportunities for applying techniques are provided through laboratory and field projects.

JOUR 345 Advertising Campaigns (3)

Prerequisite: JOUR 341. A discussion of ways to plan and execute advertising campaigns in typical situations that arise in an advertising agency. Integration of advertising theories and techniques into a complete campaign is covered.

JOUR 350 Photojournalism in the Digital Age (3)

Students are required to use their own camera and budget for the costs of film and processing of 20–30 rolls of film. Prerequisite: JOUR 201. An exploration of techniques and trends in photojournalism. Practice in the fundamentals of photography (exposure, basic lighting techniques, portraiture and composition, and scanning and digitally toning photos using PhotoShop) is provided. Assignments include developing a mini portfolio of short photo essays and a final story project to be published on the course Web site. The history of photojournalism is surveyed, focusing on the recent development of webzines and online newspapers.

JOUR 371 Magazine Article and Feature Writing (3)

Prerequisite: JOUR 201. A study of various types of feature articles, particularly in the magazine market. The medium and its specialized audiences are analyzed. Practice in researching and writing the feature article, and in evaluating freelance markets, is provided.

JOUR 380 Science Writing for Magazines and Newspapers (3)

Prerequisite: JOUR 320. An introduction to writing and editing scientific and technical material for both the general audience and the specialist.

JOUR 410 History of Mass Communication (3)

(Fulfills the historical perspective requirement.) A discussion of the development of newspapers, magazines, radio, television, and motion pictures as media of mass communication. The influence of the media on the historical development of the nation is considered.

JOUR 459 Special Topics in Mass Communication (3)

(Open to all students.) Study of issues of special concern and current interest. May be repeated to a maximum of 6 credits when topics differ.

JOUR 486A Internship in Journalism Through Co-op (3)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in journalism. At least 12 hours per week must be devoted to new tasks for a total of 180 hours during the Co-op session; four new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to journalism and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

JOUR 486B Internship in Journalism Through Co-op (6)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in journalism. At least 20 hours per week must be devoted to new tasks for a total of 300 hours during the Co-op session; five to eight new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to journalism and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

LGST 101 Introduction to Law (3)

A survey of the U.S. legal system and the role of the paralegal in the legal environment. Topics include the organization and powers of federal and state lawmaking institutions, court procedures, and the analysis of statutory provisions and judicial opinions. Students may receive credit for only one of the following courses: LGST 101 or PLGL 101.

LGST 200 Techniques of Legal Research (3)

Prerequisite or co-requisite: LGST 101. An introduction to the book-based methods paralegals use to locate relevant, mandatory, and current rules and interpretations. Topics include the analysis, publication, and citation of judicial opinions, statutory provisions, and administrative law and the features and use of secondary sources, digests, and citations. Computer-assisted research systems are introduced. Assignments require legal research in a library with a law collection. Students may receive credit for only one of the following courses: LGST 200 or PLGL 200.

LGST 201 Legal Writing (3)

Prerequisite: LGST 200. An introduction to the principles of writing clearly and effectively in the legal environment. Emphasis is on types of documents that paralegals may be called upon to draft, including intake memos, legal memos, and client letters. Students may receive credit for only one of the following courses: LGST 201 or PLGL 201.

LGST 204 Legal Ethics (3)

Fulfills the civic responsibility requirement.) A survey of basic principles relating to the ethical practice of law and the responsibilities of paralegals. Rules and guidelines governing the ethical conduct of lawyers and non-lawyers are introduced. Also covered are law office management principles relevant to ethical requirements. Students may receive credit for only one of the following courses: LGST 204 or PLGL 204.

LGST 312 Torts (3)

Prerequisite: LGST 201. A study of the causes of action, defenses, and remedies in the major categories of tort law as well as tort-litigation procedures and writings for which a paralegal may be responsible. Topics include intentional torts, negligence, strict liability, damages, and civil procedures. Assignments include legal research and written analysis. Students may receive credit for only one of the following courses: LGST 312 or PLGL 312.

LGST 314 Workers' Compensation Law (1)

A thorough study of the Workers' Compensation Act and the practice of workers' compensation law. Practical aspects of the workers' compensation system (including jurisdiction, employer/employee relationships, injuries covered by the Act, defenses, compensation benefits, vocational rehabilitation, and appeals) are covered. Students may receive credit for only one of the following courses: LGST 314 or PLGL 398H.

LGST 315 Domestic Relations (3)

Prerequisite: LGST 201. A study of the various legal aspects of family law. Emphasis is on the processes, procedures, and writings a paralegal may handle. Topics include divorce, separation, and annulment; child custody and visitation; and alimony, child support, disposition of property, and legal rights of children. Relevant aspects of civil procedures, enforcement, and the modification of orders and agreements are covered. Assignments include legal research and written analysis. Students may receive credit for only one of the following courses: FMCD 487, LGST 315, or PLGL 315.

LGST 316 Estates and Probate (3)

Prerequisite: LGST 201. A study of the legal concepts entailed in drafting and preparing simple wills and administering estates, as well as the processes, procedures, and writings for which a paralegal may be responsible. Topics include preliminary and practical considerations of administering an estate; the appraisal of estate assets and probate inventory; inheritance taxes; claims against the estate; management of debts, accounting, and distribution considerations; the drafting and execution of wills; and guardianships. Assignments include legal research and written analysis. Students may receive credit for only one of the following courses LGST 316, PLGL 216, or PLGL 316.

LGST 320 Criminal Law and Procedures (3)

Prerequisite: LGST 201. A study of the substantive and procedural aspects of the criminal justice system, particularly aspects related to the work of a paralegal. Topics include crimes and defenses, penalties, and court procedures. Assignments include legal research and written analysis. Students may receive credit for only one of the following courses: CJUS 234, LGST 320, or PLGL 320.

LGST 322 Evidence (3)

Prerequisite: LGST 201. A study of laws that govern the admissibility of evidence for establishing or confounding facts in trials and administrative proceedings, and the role of the paralegal in gathering evidence and helping attorneys prepare for trial. Assignments include legal research and written analysis. Students may receive credit for only one of the following courses: LGST 322, PLGL 222, or PLGL 322.

Prerequisite: LGST 201. An examination of the process of civil litigation and responsibilities commonly assigned to paralegals. Topics include investigation and interviewing, preparation of pleadings and motions, discovery, the conduct of the trial, and post-trial activity. Assignments include legal research and written analysis. Students may receive credit for only one of the following courses: LGST 325 or PLGL 325.

LGST 327 Alternative Dispute Resolution (3)

Fulfills the civic responsibility requirement.) An overview of the various processes and techniques to settle disputes without court adjudication. Topics include negotiation, mediation, and arbitration, and the role of the paralegal in these areas. Students may receive credit for only one of the following courses: LGST 327, PLGL 327, or PLGL 398G.

LGST 330 Administrative Law (3)

Prerequisite: LGST 201. An overview of the functions and procedures of federal and state administrative agencies, as well as preparation of writings pertinent to administrative law practice. Topics include rulemaking, adjudication, the use and control of agency discretion, and disclosure of information. Assignments include legal research and written analysis. Students may receive credit for only one of the following courses: LGST 330 or PLGL 330.

LGST 333 Administrative Advocacy (3)

Prerequisite: LGST 201. The fundamentals of preparing and presenting a case at an administrative agency hearing that allows representation by non-attorneys. Topics include gathering, reviewing, and organizing information; reviewing agency files; interviewing, preparing, and examining claimants and witnesses; drafting memoranda of law and opening and closing statements; organizing a hearing notebook; negotiating with the agency; and interpreting and applying agency regulations. Assignments include legal research and written analysis. Students may receive credit for only one of the following courses: LGST 333 or PLGL 398P.

LGST 335 Elder Law (3)

Prerequisite: LGST 201. An overview of legal issues that are increasingly relevant as the older population increases. Topics include health care, public entitlements, and legal and financial decision making. Emphasis is on the role of the paralegal in those areas. Assignments include legal research and written analysis. Students may receive credit for only one of the following courses: LGST 335, PLGL 335, or PLGL 398E.

LGST 340 Contract Law (3)

Prerequisite: LGST 201. A comprehensive study of the major areas of contract law that paralegals are most likely to encounter. Topics include the legal concepts of formation; modification, assignment, delegation, and status of possible third-party beneficiaries; interpretation and enforcement; discharge; breach and remedies for breach; the statute of frauds; and the parole evidence rule. Assignments include legal research and written analysis. Students may receive credit for only one of the following courses: LGST 340 or PLGL 340.

LGST 343 Real Estate Transactions (3)

Prerequisite: LGST 201. A study of the essentials of real estate law. Emphasis is on settlement procedures, with a study of the processes, procedures, and writings for which a paralegal may be responsible. Discussion covers real estate contracts, types and sources of mortgage financing, title work, and closing and settlement. Other topics examined include easements and covenants, and condos, PUDs, and co-ops. Assignments include legal research and written analysis. Students may receive credit for only one of the following courses: LGST 343 or PLGL 343.

LGST 345 Landlord Tenant Law (1)

A nuts -and-bolts study of landlord/tenant issues. Focus is on the rights and obligations of landlords in rental properties and the rights of tenants and how to assert those rights. Topics include lease provisions and eviction processes and how to defend against eviction. Assignments include legal research and written analysis. Students may receive credit for only one of the following courses: LGST 345 or PLGL 398K.

LGST 360 Computer Application in the Legal Environment (3)

Prerequisite: Basic familiarity with computers. An overview of uses of computer software in the legal environment for the prospective paralegal. The concepts and theory of computer operations are explained in the context of needs analysis for law firms. Applications such as text processing, database management, electronic spreadsheets, timekeeping, docket control, and litigation support are emphasized. Students may receive credit for only one of the following courses: CAPP 343, LGST 360, or PLGL 360.

LGST 363A Computer-Assisted Litigation Support (3)

Prerequisite: LGST 325. A focused study for the intermediate computer user of the uses of computer software to support litigation. Topics include databases, document discovery, document coding and abstracting, search and retrieval methods, and project management. Students may receive credit for only one of the following courses: LGST 363A or PLGL 363A.

LGST 370 Advanced Legal Analysis (3)

An advanced study of the legal analysis skills needed by the paralegal to successfully complete a variety of tasks in the legal environment. Skills covered include spotting and framing legal issues, identifying and applying relevant law to predict and to advocate the outcome of legal issues, and using legal rules and interpretations to develop informal and formal discovery plans. Assignments include legal research and written analysis. Students may receive credit for only one of the following courses: LGST 370 or PLGL 370.

LGST 400 Advanced Legal Research (3)

Prerequisite: LGST 200. An exhaustive study of methods and techniques for planning and completing a complex legal research project. Features and uses of book-based and online sources for both primary and secondary legal authority are presented. Assignments include legal research and written analysis. Students may receive credit for only one of the following courses: LGST 400 or PLGL 400.

LGST 401 Advanced Legal Writing (3)

Fulfills the general education requirement in intensive upper-level writing. Prerequisite: LGST 201. A thorough grounding in the principles and techniques of drafting sophisticated legal memoranda that paralegals may be asked to prepare. Writings covered include complex office and advocacy memoranda as well as selected parts of appellate briefs. Assignments include legal research. Students may receive credit for only one of the following courses: LGST 401 or PLGL 401.

LGST 411 Consumer Protection Law (3)

Prerequisite: LGST 201. A general overview of consumer protection law and the roles of federal, state, and local agencies for the prospective paralegal. Topics include warranties, the regulation of consumer credit, restrictions on advertising, and credit reporting. Assignments include legal research and written analysis. Students may receive credit for only one of the following courses: LGST 411 or PLGL 411.

LGST 415 Intellectual Property (3)

Prerequisite: LGST 201. An overview of patents, trademarks, and copyright law. Emphasis is on the role of the paralegal in application, maintenance, research, and litigation processes. Assignments include legal research and written analysis. Students may receive credit for only one of the following courses: LGST 415, PLGL 398D, or PLGL 415.

LGST 420 Immigration Law (3)

Prerequisite: LGST 201. An overview of the laws, agencies, and procedures involved in U.S. immigration law and the role of paralegals in immigration practice. Topics include sources and administration of immigration law and research and preparation of various immigration documents. Assignments include legal research and written analysis. Students may receive credit for only one of the following courses: LGST 420, PLGL 398F, or PLGL 420.

LGST 425 Advanced Civil Litigation (3)

Prerequisites: LGST 201 and 325; LGST 322 recommended. A study of the nuts and bolts of paralegal practice in large-case civil litigation. Topics include discovery and motion practice; pretrial preparation, including the pretrial memorandum; and preparation of the excerpt of record for the appellate court. Assignments include legal research and written analysis. Students may receive credit for only one of the following courses: LGST 425 or PLGL 398N.

LGST 431 Government Information Practices (3)

Prerequisite: LGST 201. An introduction to federal statutes and interpretive case law governing requirements, exemptions, and procedures related to the disclosure of information by the federal government. Focus is on the processes, procedures, and writings for which a paralegal may be responsible. Assignments include legal research and written analysis. Students may receive credit for only one of the following courses: LGST 431, PLGL 331, or PLGL 431.

LGST 432 Environmental Law (3)

Prerequisite: LGST 201. An exploration of the statutory and regulatory bases of environmental law, for the prospective paralegal. Topics include the role of federal agencies in such undertakings as controlling various types of pollution, assessing and managing risk, and regulating toxic substances. Assignments include legal research and written and oral analysis. Students may receive credit for only one of the following courses: LGST 432, PLGL 332, or PLGL 432.

LGST 434 Government Contracts (3)

Prerequisites: LGST 201 and 340. An overview of the rules and regulations that must be followed in preparing and executing government contracts for the prospective paralegal. Methods of acquisition, types of contracts and settlements, modifications, socioeconomic provisions, and disputes and remedies are covered. Assignments include legal research and written analysis. Students may receive credit for only one of the following courses: LGST 434 or PLGL 434.

LGST 442 Business Organizations (3)

Prerequisite: LGST 201. An overview of the legal aspects of establishing, organizing, developing, and operating a business enterprise, and the processes, procedures, and writings for which a paralegal may be responsible. Assignments include legal research and written analysis. Students may receive credit for only one of the following courses: LGST 442, PLGL 342, or PLGL 442.

LGST 445 Employment Law (3)

Prerequisite: LGST 201. An overview of federal and state laws governing the employment relationship in the public and private sectors. Topics include employee protection from discrimination and harassment, employer obligations toward disabled workers, privacy issues, and employment contract matters. Focus is on the knowledge and practical skills required for a paralegal working in this area. Assignments include legal research and written analysis. Students may receive credit for only one of the following courses: LGST 445 or PLGL 398O.

LGST 450 Bankruptcy Law (3)

Prerequisite: LGST 201. A study of the bankruptcy code and the related rules of procedure, and the role of the paralegal in assisting attorneys in bankruptcy practice. Techniques detailed include how to identify and gather relevant data and how to draft and file appropriate documents. Assignments include legal research and written analysis. Students may receive credit for only one of the following courses: LGST 450 or PLGL 450.

LGST 486A Legal Studies Internship Through Co-op (3)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in legal studies. At least 12 hours per week must be devoted to new tasks for a total of 180 hours during the Co-op session; four new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to legal studies and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

LGST 486B Legal Studies Internship Through Co-op (6)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in legal studies. At least 20 hours per week must be devoted to new tasks for a total of 300 hours during the Co-op session; five to eight new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to legal studies and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

LIBS 150 Information Literacy and Research Methods (1)

An introduction to the research process and methods for retrieving information in a library or through online sources. Experience in approaching research, selecting a topic, and retrieving information on topics of professional or personal interest is provided. Focus is on developing the following information literacy skills: understanding the research process; selecting relevant print and electronic sources to answer research questions; effectively using Web search engines and ADAMS Information and Library Services' electronic resources to find information; and evaluating, organizing, and correctly citing the information found. Students may receive credit for only one of the following courses: COMP 111, LIBS 100, or LIBS 150.

MGST 120 Fundamentals of the Accounting Process (3)

(Not open to students who have completed ACCT 220 or an equivalent course in financial accounting. For students with little or no prior background in accounting.) An in-depth study of the accounting cycle, from journal and ledger entries to the preparation and analysis of financial statements for both service and retail concerns. Topics include special journals and cash and payroll accounting.

MGST 140 Personal Financial Management (3)

An examination of personal financial management, blending financial theory with financial applications. Focus is on developing personal skills in financial management (such as balancing a checkbook, budgeting personal income and expenditures, and planning for financial security and retirement). Topics include elements of the U.S. financial structure (such as savings and investment alternatives, financing and credit sources, the role of insurance in protecting income and assets, and federal income tax requirements).

MGST 161 Managerial Communications Skills (3)

An examination of the communication model. Practice is provided in sending and receiving information through reading, writing, listening, speaking, and observing nonverbal cues using job-related situations.

MGST 162 Personnel Counseling (3)

A study of counseling as part of a supervisor's responsibilities. The counseling process is examined through role-playing exercises. Focus is on developing skills in areas such as active listening and observing, focusing on the problem, empathetic understanding, guiding decision making, and recognizing referral situations. Counseling situations (e.g., performance appraisals, gender issues, personal crises that affect work performance, and performance problems) are drawn from the work environment.

MGST 310 Managerial Leadership (3)

Prerequisite: BMGT 110 or equivalent business or management experience. Advanced study of the characteristics of leaders, as opposed to those of managers and administrators. Concepts of influence, power, and effectiveness are explored. The situational approach to leadership, with its effects on participation, delegation, and decision making, is also considered. Practice in the methods and techniques of effective leadership (such as motivation, delegation, conflict resolution, employee performance and evaluation) is provided. Students may receive credit for only one of the following courses: BMGT 365, MGMT 300, MGST 310, or TEMN 310.

MGST 320 Governmental Accounting (3)

Prerequisites: BMGT 110 (or equivalent business or management experience) and ACCT 221. An examination of accounting and reporting concepts and standards, as well as procedures that apply to state and federal organizations. Financial management factors are examined, along with problems peculiar to the not-for-profit sector.

MGST 398 Special Topics in Management Studies (1–3)

Investigation of special topics focusing on relevant problems of general interest. May be repeated when topics differ.

MGST 486A Internship in Management Studies Through Co-op (3)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in management studies. At least 12 hours per week must be devoted to new tasks for a total of 180 hours during the Co-op session; four new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to management studies and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

MGST 486B Internship in Management Studies Through Co-op (6)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in management studies. At least 20 hours per week must be devoted to new tasks for a total of 300 hours during the Co-op session; five to eight new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to management studies and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship course-work through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

MRKT 310 Marketing Principles and Organization (3)

Prerequisite: ECON 203 or equivalent. An introduction to the field of marketing, intended to develop a general understanding and appreciation of the forces, institutions, and methods involved in marketing a variety of goods and services. Topics include segmentation, target marketing, positioning, developing new products, pricing, distributing and promoting goods and services, and sales and marketing management. Students may receive credit for only one of the following courses: BMGT 350, MGMT 322, MRKT 310, or TMGT 322.

MRKT 312 Services Marketing (3)

Prerequisite: MRKT 310 or equivalent. Evaluation of successes and failures in the marketing of services in service businesses, professional service firms, and government agency settings. Topics include marketing research and analysis; segmentation; strategic planning; design of services and training; customer service and service quality; channel management; pricing; advertising and sales promotion; sales; and implementation, monitoring, and control. Students may receive credit only once under this course number and for only one of the following courses: BMGT 498D, MGMT 498D, or MRKT 312.

MRKT 314 Nonprofit Marketing (3)

Prerequisite: MRKT 310 or equivalent. An introduction to key issues in nonprofit marketing. Topics include nonprofit marketing issues related to constituencies, planning, products and services, membership, and promotion as well as association and social marketing. Students may receive credit for only one of the following courses: BMGT 398B or MRKT 314.

MRKT 317 Issues in Pricing (1)

Recommended: MRKT 310. An introduction to the determination of pricing for a firm's product or service. Integration of pricing strategy with other marketing mix elements is considered. Case studies and exercises in pricing are used to examine the issues. Students may receive credit for only one of the following courses: BMGT 398V, MGMT 398V, or MRKT 317.

MRKT 318 Exploring Internet Marketing (1)

Recommended: MRKT 310. An exploration of various potential uses and goals of Internet marketing in addition to its obvious role of inducing sales or generating sales leads. Topics include the role of electronic commerce in the marketing mix, advantages of using the Internet as a marketing tool, the ethical and legal constraints of Internet marketing, and creative strategies for implementing Internet marketing campaigns. Current publications, online computer exercises, and class discussions are used to examine marketing via the Internet. Students may receive credit for only one of the following courses: BMGT 398O, BMGT 398R, MGMT 398O, MGMT 398R, or MRKT 318.

MRKT 319 Contemporary Issues in Marketing (1)

Recommended: MRKT 310. A review of current marketing practices with emphasis on how best practices support marketing theory and relationship building. The marketing decisions of companies reported in the news within the previous year are analyzed and their ramifications considered. New trends in marketing practices (such as the impact of technology on marketing strategy and the business cycle) are emphasized.

MRKT 320 New Product Development (1)

Recommended: MRKT 310. An exploration of the new product development process from scanning the environment for new product ideas through development and execution of marketing strategy to commercialization. Emphasis is on the need for innovation, product adoption, and product diffusion. Development of new services is also covered.

MRKT 321 Analyzing the Competition (1)

Recommended: MRKT 310. An overview of theoretical frame-works used to analyze industries and competitors, and how these frameworks can be used to gain and maintain competitive advantage and build relationships. Emphasis is on how competitive analysis affects marketing strategy and marketing mix decisions.

MRKT 322 Evaluating Marketing Programs (1)

Recommended: MRKT 310. An exploration of the techniques and tools used by marketers to assess marketing strategies. The control process, profitability analysis, customer satisfaction, expectation measures, and performance measures are reviewed. Emphasis is on appropriate corrective actions to modify marketing strategies for better results.

MRKT 323 Fundamentals of Direct Marketing (1)

Recommended: MRKT 310. An introduction to direct marketing issues. Planning for direct marketing, media, production of direct marketing packages, and operations is briefly explored. Students may receive credit for only one of the following courses: BMGT 398C or MRKT 323.

MRKT 324 Developing Market Segments (1)

Recommended: MRKT 310. An in-depth review of the market segmentation process. Topics include identification of market segments, selection of target markets, and competitive positioning. Types of segmentation variables and means for obtaining segmentation data are covered.

MRKT 325 Developing Channels for Relationship Marketing (1)

Recommended: MRKT 310. An introduction to the types of channel members used to build relationships and bring products and services to market. Topics include channel design, use of technology to enhance channel member performance, and assessing channel member's ability to add value for customers. Both direct and indirect channel design are discussed.

MRKT 353 Retail Management (3)

Prerequisite: MRKT 310 or equivalent. A review of the organization, location, design, layout, management, and policies of retail stores. Topics include retail planning, administration, operational control, customer behavior, competition, marketing channels, the legal environment, financial planning, merchandise planning and buying, credit policies, pricing, brands, and advertising and promotion. Personal selling, customer service, sales management, strategic planning, human resource management, training, and information technologies commonly applied in retailing are also examined. Students may receive credit for only one of the following courses: BMGT 353 or MRKT 353.

MRKT 354 Integrated Marketing Communications (3)

Prerequisite: MRKT 310 or equivalent. An in-depth study of promotional activities such as advertising, personal selling, sales promotions, and direct marketing (including use of the Internet). Emphasis is on strategic planning of promotional activities to communicate with customers to achieve marketing objectives. The relationship of integrated marketing communications to other elements of promotional activities is also explored. Students may receive credit for only one of the following courses: BMGT 354 or MRKT 354.

MRKT 357 Marketing Public Relations (3)

Prerequisite: MRKT 310 or equivalent. An in-depth study of how public relations has evolved from a corporate communications function to its current expanded role in the achievement of marketing and sales objectives. Discussion covers the theoretical basis of marketplace forces driving the growth of marketing public relations and how these forces can be used to create value for customers. Topics include planning marketing public relations as part of a firm's overall integrated marketing strategy and using marketing public relations to reinforce advertising messages and launch new products. Special events marketing, sports marketing, public service programming, and cause-related marketing are also discussed. Case studies are used to assess the impact of both proactive and reactive marketing of public relations strategies. Experience with basic public relations techniques is provided in areas such as writing news, planning special events, and generating publicity and other multimedia communications used by public relations practitioners. Students may receive credit for only one of the following courses: BMGT 398U or MRKT 357.

MRKT 371 Professional Selling (3)

Prerequisite: MRKT 310 or equivalent. A study of the role of selling and sales skills in the modern marketing environment. Types of selling covered include in-store and outside retailing, organizational and industrial sales, trade-show and exhibition sales, consultative sales, and telemarketing. Other topics include the psychology of selling, planning and preparation, time management, profitability analysis, and the entire sales process. Students may receive credit for only one of the following courses: BMGT 355, BMGT 498B, or MRKT 371.

MRKT 373 Marketing Channels (3)

Prerequisite: MRKT 310 or equivalent. A study of how strategic channel design adds value to marketing exchanges, allowing firms to sustain competitive advantage. The process of how products move from manufacturer to resellers to users is explored. Channel members (manufacturers, wholesalers, retailers, and specialized logistics agencies), strategic channel planning and implementation, legal issues, and the impact of information systems and the Internet on channels are covered. Emphasis is on the roles of service quality, relationship marketing, and supplier/reseller partnerships as the keys to successful channel design. Profit and nonprofit industries, as well as international channel management issues, are addressed. Students may receive credit for only one of the following courses: BMGT 388A or MRKT 373.

MRKT 374 Small Business Marketing (3)

Prerequisite: MRKT 310 or equivalent. An overview of how marketing principles and theories apply to small businesses and entrepreneurial efforts. Topics include marketing tools and techniques required for start-up businesses, including new business development, core competencies and technologies, marketing research, marketing planning, relationship marketing, and partnerships with customers and suppliers. Marketing mix issues specific to small business (such as developing new products and services, selecting sites, choosing distribution channels, establishing pricing policies, and developing and evaluating promotional campaigns) are also explored. Types and sources of marketing information available to the small-business person are identified. Students may receive credit for only one of the following courses: MGMT 332 or MRKT 374.

MRKT 410 Consumer Behavior (3)

Prerequisite: MRKT 310 or equivalent; PSYC 100 or PSYC 221 recommended. An over-view of the increasing importance of American consumers in the marketing system and the importance of understanding them. The foundations of consumer behavior (such as economic, social, psychological, and cultural factors) are examined. Consumers are analyzed in marketing situations as buyers and users of products and services and in relation to the various social and marketing factors that affect their behavior. The influence of well-directed communications is also considered. Students may receive credit for only one of the following courses: BMGT 451, CNEC 437, or MRKT 410.

MRKT 412 Marketing Research Applications (3)

Prerequisites: BMGT 230 and MRKT 310, or equivalent. A study of the specialized field of marketing research as it is used to identify market needs, profile target markets, test promotional efforts, and measure the effectiveness of marketing plans. Procedures for planning survey projects, designing statistical samples, tabulating data, and preparing reports are covered. Emphasis is on managing the marketing research function. Students may receive credit for only one of the following courses: BMGT 452 or MRKT 412.

MRKT 415 Independent Study in Marketing (3)

(Designed to allow students an opportunity to explore a marketing topic of special interest.) Prerequisite: MRKT 310 (or equivalent) and departmental approval of a proposed topic prior to registration. Independent research or project in marketing, conducted under the supervision of a faculty member. Students may receive credit only once under this course number.

MRKT 454 Global Marketing (3)

Prerequisite: MRKT 310 or equivalent. An in-depth study of marketing principles as they relate to the global marketplace. Emphasis is on understanding the influence of internationalization on the U.S. economy, the competitive pressures on the intensifying global markets, and the development of marketing plans tailored to reach international and global markets. Topics include the political, economic, legal, regulatory, and socio-cultural trends affecting international marketing; the dynamic environments in which global marketing strategies are formu lated; and the challenge of implementing marketing programs leading to competitive advantage. Students may receive credit for only one of the following courses: BMGT 454 or MRKT 454.

MRKT 456 Advertising (3)

Prerequisite: MRKT 310 or equivalent. An exploration of the role of advertising in the American economy. Analysis covers the effects of advertising on economic and social life; the methods and techniques that advertising practitioners use; the role of newspapers, magazines, and other media in developing an advertising campaign; modern methods of research to improve the effectiveness of advertising; and the organization f the advertising business. Students may receive credit for only one of the following courses: BMGT 456 or MRKT 456.

MRKT 457 Web Marketing (3)

Prerequisite: MRKT 310 or equivalent. An exploration of how computer applications, databases, and the World Wide Web enhance the marketing process and create relationships with customers. Topics include the use of the computer in developing marketing strategy, conducting market research, and making marketing-mix decisions. Emphasis is on the Internet as a marketing communications tool; creative approaches to home page design are included. Use of the computer to measure the effectiveness of marketing efforts is also covered. Students may receive credit for only one of the following courses: BMGT 398O, BMGT 398R, MGMT 398O, or MGMT 398R.

MRKT 471 Business Marketing (3)

Prerequisite: MRKT 3l0 or equivalent. An examination of the basic marketing functions applied to business and government sectors rather than individual consumers. Topics include planning and introducing products, analyzing and forecasting markets, developing and using channels, pricing and planning promotional strategies, and managing a sales force and business marketing. Students may receive credit for only one of the following courses: BMGT 453 or MRKT 471.

MRKT 475 Sales Management (3)

Prerequisite: MRKT 310 or equivalent. An overview of the role of the sales manager, both at headquarters and in the field, in managing people, resources, and functions of marketing. The problems of organizing, forecasting, planning, communicating, evaluating, and controlling sales are analyzed. Quantitative techniques and pertinent concepts of behavioral science are applied to the management of the sales effort and sales force. Students may receive credit for only one of the following courses: BMGT 455 or MRKT 475.

MRKT 486A Internship in Marketing Through Co-op (3)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in marketing. At least 12 hours per week must be devoted to new tasks for a total of 180 hours during the Co-op session; four new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to marketing and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

MRKT 486B Internship in Marketing Through Co-op (6)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in marketing. At least 20 hours per week must be devoted to new tasks for a total of 300 hours during the Co-op session; five to eight new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to marketing and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

MRKT 495 Marketing Policies and Strategies (3)

To be taken in student's last 30 semester hours. Prerequisites: MRKT 310 and one other marketing course. A study of integrative decision making in marketing, with case studies. The use of appropriate decision models is stressed, along with the analysis of consumers and markets. Students may receive credit for only one of the following courses: BMGT 457 or MRKT 495.

MATH 009 Introductory Algebra (3)

(Not open to students who have already successfully completed a higher-level mathematics course. Does not apply toward degree requirements. Yields institutional credit only.) Prerequisite: MATH 001 or an appropriate score on a placement test. A comprehensive review of fractions, percentages, operations with signed numbers, and geometric formulas. Basic algebraic topics include exponents, polynomials, and linear equations. Strategies to build self-confidence in mathematics are offered for students whose academic progress is being blocked by anxiety about their mathematics coursework. Students may receive credit for only one of the following courses: MATH 009, MATH 009M, or MATH 100.

MATH 012 Intermediate Algebra (3)

(Not open to students who have already successfully completed a higher-level mathematics course. Does not apply toward degree requirements. Yields institutional credit only.) Prerequisite: MATH 009 or an appropriate score on the placement test. A study of problem-solving techniques in intermediate-level algebra. Numbers and algebraic properties, graphing skills, and applications drawn from a variety of areas (such as statistics, computing, and discrete mathematics) are emphasized. Topics include polynomials; factoring; exponents and their notation; linear, quadratic, and other equations; and inequalities. Students may receive credit for only one of the following courses: MATH 012, MATH 101, MATH 101M, MATH 102, MATH 102M, MATH 199A, or MATH 199M.

MATH 105 Mathematics: Contemporary Topics and Applications (3)

(Not intended for students planning to take MATH 107 or higher-numbered courses; does not serve as a prerequisite for these courses.) Prerequisite: MATH 012 or an appropriate score on the placement test. A survey of contemporary topics in mathematics, covering applications and projects. Topics include problem solving, sequences and series, financial management, geometry, probability, and statistics.

MATH 107 College Algebra (3)

(The first course in the two-course series MATH 107–108. An alternative to MATH 115 Pre-Calculus.) Prerequisite: MATH 012 or an appropriate score on the placement test. An introduction to equations, inequalities, and absolute values and a study of functions and their properties, including the development of graphing skills with polynomial, rational, exponential, and logarithmic functions. Applications are also covered. Students may receive credit for only one of the following courses: MATH 107 or MATH 115.

MATH 108 Trigonometry and Analytical Geometry (3)

(The second course in the two-course series MATH 107–108. An alternative to MATH 115 Pre-Calculus.) Prerequisites: MATH 107 or an appropriate score on the placement test. An introduction to trigonometric functions, identities, and equations and their applications. Analytical geometry and conic sections are covered. Additional topics may include matrices, determinants, sequences, and series. Students may receive credit for only one of the following courses: MATH 108 or MATH 115.

MATH 115 Pre-Calculus (3)

(Not open to students who have completed MATH 140 or any course for which MATH 140 is a prerequisite.) Prerequisites: MATH 012 or an appropriate score on the placement test. Explication of elementary functions and graphs. Topics include polynomials, rational functions, and exponential and logarithmic functions. Algebraic techniques preparatory for calculus are presented. Students may receive credit for only one of the following: MATH 107–108 or MATH 115.

MATH 140 Calculus I (4)

Prerequisite(s): MATH 107–108, MATH 115, or an appropriate score on the placement test. An introduction to calculus. Topics include functions, the sketching of graphs of functions, limits, continuity, derivatives and applications of the derivative, definite and indefinite integrals, and calculation of area. Students may receive credit for only one of the following courses: MATH 130, MATH 131, MATH 140, or MATH 220.

MATH 141 Calculus II (4)

(A continuation of MATH 140.) Prerequisite: MATH 140. A study of integration and functions, with application, and coverage of other topics. Focus is on techniques of integration, improper integrals, and applications of integration (such as volumes, work, arc length, and moments); inverse, exponential, and logarithmic functions; and sequences and series. Students may receive credit for only one of the following courses: MATH 131, MATH 132, MATH 141, or MATH 221.

MATH 220 Elementary Calculus I (3)

Prerequisite: MATH 107, 115, or an appropriate score on the placement test. A presentation of the basic ideas of differential and integral calculus. Emphasis is on elementary techniques of differentiation, as well as applications. Students may receive credit for only one of the following courses: MATH 130, MATH 131, MATH 140, or MATH 220.

MATH 221 Elementary Calculus II (3)

Prerequisite: MATH 140 or MATH 220. A study of differential and integral calculus. Emphasis is on elementary techniques of integration and various applications. Students may receive credit for only one of the following courses: MATH 131, MATH 132, MATH 141, or MATH 221.

MATH 240 Introduction to Linear Algebra (4)

Prerequisite: MATH 141. An explanation of the basic concepts of linear algebra. Topics include vector spaces, applications to line and plane geometry, linear equations, and matrices, as well as linear transformations, changes of basis, diagonalization, similar matrices, Jordan canonical forms, eigenvalues, determinants, and quadratic forms. Students may receive credit for only one of the following courses: MATH 240, MATH 400, or MATH 461.

MATH 241 Calculus III (4)

Prerequisite: MATH 141. An introduction to multivariable calculus. Exposition covers vectors and vector-valued functions; partial derivatives and applications of partial derivatives (such as tangent planes and Lagrangian multipliers); multiple integrals; volume; surface area; and the classical theorems of Green, Stokes, and Gauss.

MATH 246 Differential Equations (3)

Prerequisite: MATH 141. An introduction to the basic methods of solving differential equations. Separable, exact, and linear differential equations are addressed. The main techniques considered are undetermined coefficients, series solutions, Laplace transforms, and numerical methods. Students may receive credit only once under this course number.

MATH 301 Concepts of Real Analysis I (3)

(The first course of a two-course sequence.) Prerequisites: MATH 240 and 241. An approach to real analysis. Topics include sequences and series of numbers, continuity and differentiability of real-valued functions of one variable, the Riemann integral, sequences of functions, and power series. Also discussed are the functions of several variables, including partial derivatives, multiple integrals, line and surface integrals, and the implicit-function theorem. Students may receive credit for only one of the following courses: MATH 301 or MATH 410.

MATH 302 Concepts of Real Analysis II (3)

(The second course of a two-course sequence. A continuation of MATH 301.) Prerequisite: MATH 301. Further study of real analysis. Students may receive credit for only one of the following courses: MATH 302 or MATH 411.

MATH 370 Actuarial Science (3)

Prerequisite: MATH 241. A study of the computation of rates based on statistical probabilities. Focus is on measurement of interest, force of interest, term-certain annuities, and mathematical techniques in analyzing life insurance settlement options. Topics may also include materials from the mathematics of compound interest in the associate-ship examinations of various actuarial organizations.

MATH 381 Operations Research (3)

Prerequisite: MATH 240. An exploration of linear programming models and applications, simplex algorithms, sensitivity analysis, integer programming, and network flow models.

MATH 390 Mathematics of Communication (3)

Prerequisite: MATH 240. An overview of the mathematics of electronic communication. Topics include signaling and modulation; filtering and signal-to-noise ratio; encoding for error correction/detection and compression; Fourier analysis; congestion in networks, queuing, routing, and flow control; and cryptography.

MATH 402 Algebraic Structures (3)

Prerequisite: MATH 240. An overview of groups, rings, integral domains, and fields; detailed study of several groups; and exploration of properties of integers and polynomials. Topics may include introduction to computer algebra and Boolean algebra.

MATH 432 Point Set Topology (3)

Prerequisite: MATH 241. A survey of connectedness, compactness, transformations, and homomorphisms. The concepts are applied to various spaces. Particular attention is paid to the Euclidean plane.

MATH 436 Modern Geometry (3)

Prerequisites: MATH 240 and 241. A survey of the basic concepts of modern geometry. Topics include curves in the plane and Euclidean space; surfaces in Euclidean space and orientability of surfaces; Gaussian and mean curvatures; surfaces of revolution and ruled and minimal surfaces; special curves on surfaces; Theorema Egregium; and the intrinsic geometry of surfaces.

MATH 450 Logic for Computer Science (3)

Prerequisites: CMSC 150 and MATH 241. Elementary development of propositional logic (including the resolution method) and first-order logic (including Hebrand's unsatisfiability theorem). Discussion covers the concepts of truth and interpretation; validity, provability, and soundness; completeness and incompleteness; and decidability and semi decidability. Students may receive credit for only one of the following courses: CMSC 450, MATH 444, MATH 445, or MATH 450.

MATH 463 Complex Variables (3)

Prerequisite: MATH 241. A survey of analytic functions, mapping properties of the elementary functions, the algebra of complex numbers, and the Cauchy integral formula. Further topics include conformal mapping as well as theory of residues and its application to evaluation of integrals.

MATH 466 Numerical Analysis (3)

Prerequisites: MATH 240 and 241. A study of various methods of numerical analysis. Topics include solutions of equations in one variable, interpolation and polynomial approximation, and numerical integration. Also discussed are direct methods for solving linear systems and applications to finance and actuarial science.

MATH 475 Combinatory and Graph Theory (3)

Prerequisites: MATH 240 and 241. An exploration of general enumeration methods, difference equations, and generating functions. Focus is on elements of graph theory, matrix representations of graphs, and applications of graph theory to transport networks. Matching theory and graphical algorithms are also considered. Students may receive credit for only one of the following courses: CMSC 475 or MATH 475.

MATH 486A Internship in Mathematics Through Co-op (3)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in mathematics. At least 12 hours per week must be devoted to new tasks for a total of 180 hours during the Co-op session; four new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to mathematics and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

MATH 486B Internship in Mathematics Through Co-op (6)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in mathematics. At least 20 hours per week must be devoted to new tasks for a total of 300 hours during the Co-op session; five to eight new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to mathematics and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

MUSC 130 Survey of Western Music Literature (3)

(Fulfills the historical perspective requirement.) An introduction to the major historical styles and forms of Western classical music. Focus is on selected masterworks, their composers and cultural context, and hallmarks of the styles they represent. Works are studied through reading, discussion, and active listening to recordings and live performances. Students may receive credit for only one of the following courses: HUMN 130, MUSC 130, or MUSC 131.

MUSC 140 Music Fundamentals I (3)

An introduction to music theory. Notation, scales, intervals, triads, rhythm, form, and basic aural skills are covered. Students may receive credit for only one of the following courses: HUMN 140 or MUSC 140.

MUSC 210 The Impact of Music on Life (3)

Fulfills the international perspective requirement. A study of music as a part of culture. Materials are drawn from traditions throughout the world to illustrate issues of historical and contemporary significance, including the impact of race, class, and gender on the study of music. Students may receive credit for only one of the following courses: HUMN 211 or MUSC 210.

MUSC 391 Great Composer Series: Beethoven (1)

A survey of the life and music of Beethoven. Biographical data, a historical and cultural overview of Beethoven's Vienna, and analytical studies of representative works by Beethoven are included.

MUSC 392 Great Composer Series: Mozart (1)

A survey of the historical, musical, and biographical background of Mozart. Stylistic traits of his music are examined through representative compositions.

MUSC 436 Jazz: Then and Now (3)

An examination of jazz in America during the past 75 years—its major styles and its influential artists. Students may receive credit for only one of the following courses: HUMN 436 or MUSC 436.

MUSC 448B The Music of the Symphony (1)

An overview of the symphony, from its birth in the courts of the nobility through its growth into the definitive public musical form in the Western concert arena. Topics include the elements of the symphony; its construction, performers, and composers; and its development as a means of expression in a changing culture. Selected works are explored through reading, discussion, and active listening. The goal is to become familiar with broader trends in symphonic style. Students may receive credit for only one of the following courses: HUMN 448 or MUSC 448B.

NSCI 100 Introduction to Physical Science (3)

For students not majoring or minoring in a science. Prerequisite: MATH 012. An introduction to the basic principles of physics, chemistry, astronomy, geology, oceanography, and meteorology. Discussion covers the development of scientific thinking, the scientific method, the relationships among the various physical sciences, and the role of the physical sciences in interpreting the natural world. Students may receive credit for only one of the following courses: GNSC 100 or NSCI 100.

NSCI 170 Concepts of Meteorology (3)

For students not majoring or minoring in a science. Prerequisite: MATH 012. An introduction to the basic principles of atmospheric science. Topics include weather patterns and prediction, climate and climatic change, the role of Earth's topography in determining weather and climate, and the effects of the interaction of sunlight with Earth's atmosphere. The impact of humans on Earth's atmosphere (with respect to global warming, pollution, and the depletion of the ozone layer), as well as the resulting impact on humans (such as the increase in skin cancer rates), is discussed. Students may receive credit for only one of the following courses: GNSC 170, GNSC 398D, or NSCI 170.

NSCI 171 Laboratory in Meteorology (1)

For students not majoring or minoring in a science. Fulfills the laboratory science requirement only with previous or concurrent credit for NSCI 170. Prerequisite: MATH 012; prerequisite or corequisite: NSCI 170. An introduction to the basic concepts of meteorology. Focus is on the observation, measurement, and prediction of weather patterns and conditions and the interpretation and analysis of meteorological data. Students may receive credit for only one of the following courses: GNSC 171or NSCI 171.

NSCI 301 Laboratory Organization and Management (3)

Does not fulfill the general education requirement in the biological and physical sciences. An overview of the day-to-day organization and management of research and development laboratories. Topics include laboratory operating systems, finances and recordkeeping, communication systems, safety procedures, data management, project planning, problem solving, procurement, personnel training, and inventory execution and maintenance. Students may receive credit for only one of the following courses: GNSC 301, MEDT 301, or NSCI 301.

NSCI 361 Global Environmental Change (6)

Yields 3 natural science credits and either 3 social science credits or 3 humanities credits. Fulfills the civic responsibility or international perspective requirement. An in-depth examination of environmental changes that many believe are caused by human adaptations to Earth's natural resources, and the possible effects on both the global biosphere and the human condition. Scientific and social issues are explored through various questions: Is global warming really happening? Will sea levels rise? What are the consequences of massive deforestation? What can be done when there is so much scientific uncertainty and global social diversity? The concept of sustainability, as it applies to human interactions with the environment, is emphasized. Students may receive credit for only one of the following courses: BEHS 361, GNSC 361, HUMN 360, or NSCI 361.

NSCI 398E Environmental Damage: Separating Fact from Fiction (1)

An examination of the controversies surrounding current environmental issues and the underlying evidence. Topics include the destruction of tropical rainforests; loss of biodiversity; the proliferation of Pfiesteria in waterways; contamination of local communities by PCBs, lead, and nuclear waste; chlorination of drinking water; the use of pesticides and herbicides on food supplies; global warming; and the state of the ozone layer. These topics are also considered with respect to the history and evolution of the environmental movement and environmental regulations. Students may receive credit for only one of the following courses: BEHS 361, ENMT 301, GNSC 361, GNSC 398E, HUMN 360, NSCI 361, or NSCI 398E.

NSCI 398I Astrobiology (3)

For students not majoring in a science. An introduction to planetary astronomy with an overview of biology, geology, and chemistry related to the existence of life on Earth and to speculations that affect the search for life elsewhere in the cosmos. Topics include the chemistry of comets, space missions to Mars and Europa in search of life, the relevance of life on Earth in extreme environments (e.g., deep-sea vents and Antarctica), the assembly of prebiotic amino acids into DNA, and the possibility of life elsewhere in the universe. Students may receive credit for only one of the following courses: ASTR 380, GNSC 398I, or NSCI 398I.

NSCI 399 Independent Study in Natural Science (1–6)

Prerequisite: 6 credits in upper-level natural science courses and agreement of faculty member to act as supervisor. Directed independent study of topics of special interest not covered by regularly scheduled courses in natural science. May be repeated to a maximum of 6 credits when topics differ.

NSCI 486A Internship in Natural Science Through Co-op (3)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in natural science. At least 12 hours per week must be devoted to new tasks for a total of 180 hours during the Co-op session; four new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to natural sciences and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

NSCI 486B Internship in Natural Science Through Co-op (6)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in natural science. At least 20 hours per week must be devoted to new tasks for a total of 300 hours during the Co-op session; five to eight new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

PHIL 100 Introduction to Philosophy (3)

An introduction to the literature, problems, and methods of philosophy. The subject is approached either by studying some of the main figures in philosophic thought or by considering some central, recurring problems of philosophy. Students may receive credit for only one of the following courses: HUMN 125 or PHIL 100.

PHIL 140 Contemporary Moral Issues (3)

(Fulfills the civic responsibility requirement.) An exploration of how philosophical analysis can be a foundation for thinking clearly about moral issues. Problems approached analytically include such widely debated issues as abortion, euthanasia, the death penalty, homosexuality, pornography, reverse discrimination, business ethics, sexual equality, and economic equity. Students may receive credit for only one of the following courses: HUMN 300 or PHIL 140.

PHIL 170 Introduction to Logic (3)

A general introduction to the discipline of logic. Traditional and modern deductive techniques are demonstrated and used; informal fallacies are clarified. Students may receive credit for only one of the following courses: HUMN 170 or PHIL 170.

PHIL 206 Chinese Philosophy: Social and Political Thought (3)

(Fulfills the historical or international perspective requirement.) An introductory survey of Confucian philosophy and of other Chinese social and political philosophies from ancient times to the present day. Topics include the Chou Dynasty (1122–222 B.C.) and the many schools of thought produced during that period, the reemergence of Confucian philosophy in the Sung Dynasty (960–1279 A.D.), and developments through contemporary times. Contemporary thought is discussed in the context of earlier Chinese traditions.

PHIL 208 Death and Dying (3)

(Fulfills the civic responsibility requirement.) A study of the various ways in which people confront or cope with the events of death or dying.

PHIL 209 Law and Society (3)

(Fulfills the civic responsibility requirement.) An examination of selected philosophical issues of general interest. May be repeated to a maximum of 6 credits when topics differ.

PHIL 236 Philosophy of Religion (3)

(Fulfills the civic responsibility or international perspective requirement.) A philosophical study of some of the main problems of religious thought: the nature of religious experience, the justification of religious belief, the conflicting claims of religion and science, and the relation between religion and morality. Students may receive credit for only one of the following courses: HUMN 236 or PHIL 236.

PHIL 245 Political and Social Philosophy (3)

A critical examination of classical political theories. Examples are drawn from the work of Plato, Hobbes, Locke, Rousseau, Mill, and Marx. Contemporary theories (such as those of Hayek, Rawls, and recent Marxist thinkers) are also covered. Students may receive credit for only one of the following courses: HUMN 245, PHIL 245, or PHIL 345.

PHIL 307 Asian Philosophy (3)

An examination of the major philosophical systems of the East, and their relation to important ideas of Western thought.

PHIL 308 Zen Buddhism: Origin and Development (3)

An introduction to Zen Buddhism and its influence on Japanese culture. Topics include the original teachings of the Buddha; the basic ideas behind Zen found in the Chinese schools of Mahayana Buddhism, especially Ch'an Buddhism; and the two major Japanese schools of Zen—Rinzai and Soto. The influence of Zen on such aspects of Japanese culture as the martial arts, the tea ceremony, poetry, and landscape painting is also discussed.

PHIL 310 Ancient Philosophy (3)

A study of the origins and development of philosophy and science in ancient Greece, focusing on the pre-Socratic philosophers, Socrates, Plato, and Aristotle.

PHIL 320 Modern Philosophy (3)

A study of major philosophical issues of the 16th, 17th, and 18th centuries. Writings of such philosophers as Descartes, Newton, Hume, and Kant are explored.

PHIL 331 Philosophy of Art (3)

A study of concepts central to thought about art, including the concept of the fine arts both in its historical development and in its present problematic situation.

PHIL 340 Making Decisions (3)

Analysis of various approaches to making decisions in personal, professional, and public life. The logic of decision making, risk and probability, moral aspects of making decisions, and the standard biases in judgment are considered. Students may receive credit for only one of the following courses: HUMN 345 or PHIL 340.

PHIL 342 Moral Problems in Medicine (3)

(Fulfills the civic responsibility requirement.) A critical exploration of the dimensions of decisions in health-related contexts. Readings are drawn from philosophical, medical, and other sources. Students may receive credit for only one of the following courses: HUMN 342 or PHIL 342.

PHIL 343 Sexual Morality (3)

(Fulfills the civic responsibility requirement.) A critical examination of practical moral issues related to sexual conduct. The resources of moral and social philosophy are used as texts. Students may receive credit for only one of the following courses: HUMN 343 or PHIL 343.

PHIL 385 Philosophy and Computers (3)

Prerequisite: 3 credits in logic or computer science. A presentation of philosophical issues concerning computers, focusing on non-quantitative treatment of major results in computation theory regarding absolute limits on computers. Fundamental problems concerning computers used as models of human intelligence are examined. Students may receive credit for only one of the following courses: HUMN 385, PHIL 308C, or PHIL 385.

PHYS 121 Fundamentals of Physics I (4)

Prerequisite: MATH 108, MATH 115, or knowledge of college-level trigonometry. An exploration of mechanics. Topics include kinematics, force, dynamics, conservation laws, and rotational motion.

PHYS 122 Fundamentals of Physics II (4)

(A continuation of PHYS 121. Together with PHYS 121 generally satisfies the minimum requirement of medical and dental schools. Fulfills the laboratory science requirement.) Prerequisite: PHYS 121 or equivalent. An exploration of the fields of heat, sound, electricity, magnetism, optics, and modern physics.

PHYS 161 General Physics: Mechanics and Particle Dynamics (3)

Prerequisite or co requisite: MATH 131 or MATH 141. A study of the laws of motion, force, and energy. The principles of mechanics, collisions, linear momentum, rotation, and gravitation are investigated. Students may receive credit for only one of the following courses: PHYS 141, PHYS 161, PHYS 171, or PHYS 191.

PHYS 262 General Physics: Vibrations, Waves, Heat, Electricity, and Magnetism (4)

(Fulfills the laboratory science requirement.) Prerequisite: PHYS 161. A rigorous study of general physics. Topics include vibrations, waves, and fluids; heat, kinetic theory, and thermodynamics; and electrostatics, circuits, and magnetism. Students may receive credit for only one of the following courses: PHYS 142, PHYS 192, PHYS 262, or PHYS 272.

PHYS 263 General Physics: Electrodynamics, Light, Relativity, and Modern Physics (4)

(Fulfills the laboratory science requirement.) Prerequisite: PHYS 262. Further rigorous study of general physics. Topics include electrodynamics, Maxwell's equations, and electromagnetic waves; geometrical optics; interference and diffraction; special theory of relativity; and modern physics. Students may receive credit for only one of the following courses: PHYS 263, PHYS 273, or PHYS 293.

PSYC 100 Introduction to Psychology (3)

A survey of the basic principles, research concepts, and problems in psychological science. The biological, cognitive, and social perspectives of human thought and behavior are addressed. Topics include neuroscience, sensation and perception, learning and conditioning, memory, motivation, language and intelligence, personality and social behavior, and psychopathology and therapy. Applications of psychology are also presented. Students may receive credit for only one of the following courses: BEHS 101 or PSYC 100.

PSYC 200 Introduction to Statistical Methods in Psychology (3)

(May be applied toward a specialization in behavioral and social sciences.) Prerequisites: PSYC 100 and college algebra (MATH 107, MATH 115, or equivalent). An introduction to quantitative methods in the behavioral and social sciences and psychological research. Topics include the measurement of variables, measures of central tendency and dispersion, correlation, statistical inference and probability, hypothesis testing, t-tests, analysis of variance, and chi-square tests. Students may receive credit only once under this course number. Students who receive credit for PSYC 200 may not receive credit for the following courses: BEHS 202, BEHS 302, BMGT 230, ECON 321, GNST 201, MGMT 316, SOCY 201, STAT 100, or STAT 200.

PSYC 221 Social Psychology (3)

(May be applied toward a specialization in behavioral and social sciences.) Prerequisite: PSYC 100. An examination of the influence of social factors on individual and interpersonal behavior. Topics include conformity, attitudinal change, personal perception, interpersonal attraction, and group behavior. Students may receive credit for only one of the following courses: BEHS 221, BEHS 421, BEHS 450, or PSYC 221.

PSYC 235 Psychology of Adjustment (3)

Prerequisite: PSYC 100. A study of theory and research on the psychology of personal adjustment in everyday life. Emphasis is on self-concept, emotions, self-control, interpersonal relations, and stress.

PSYC 301 Biological Basis of Behavior (3)

Prerequisite: PSYC 100; PSYC 200 recommended. An introduction to the anatomical structures and physiological processes that determine behavior. Topics include the acquisition and processing of sensory information; the neural control of movement; and the biological bases of complex behaviors (such as sleep, learning, memory, sex, language, and addiction), as well as the basic functioning of the nervous system.

PSYC 305 Experimental Methods in Psychology (3)

Prerequisites: PSYC 100 and 200. A survey of research methods in sensory systems, memory and cognition, motivation, development, and personality and social behavior. Statistical and computer applications are introduced. Opportunities to enhance laboratory skills and gain experience in the psychological sciences are provided. Students may receive credit for only one of the following courses: PSYC 305 or PSYC 309N.

PSYC 306 Special Topics in Psychology (1–3)

Prerequisite: PSYC 100. Seminar discussion of topics of current interest. The areas explored may extend or augment those covered in more general topical courses. May be repeated to a maximum of 6 credits when topics differ.

PSYC 306J Humanistic Psychology (1)

Prerequisite: PSYC 100. A presentation of humanistic psychology, a theoretical orientation characterized by the belief that people are capable of change and, when given the opportunity, will develop to their fullest potential. The major theorists of this approach are presented, and the integration of their work with relevant research and clinical practice is discussed.

PSYC 307 Special Topics in Psychology: Natural Science Theme (1–3)

Prerequisite: PSYC 100. Seminar discussion of topics of current interest. The areas explored may extend or augment those covered in more general topical courses.

PSYC 307F Psychology of Superstition (1)

Prerequisite: PSYC 100. An in-depth examination of the phenomenon known as superstition and its antidote, skepticism, from a psychological perspective. Laboratory studies of superstitious behavior in animals and humans and the history of superstition are reviewed. The reasons behind the seemingly unlimited capacity for and the tenacious persistence of superstitious behavior in human beings are examined. The causes of and cures for superstition are also discussed.

PSYC 307G Parapsychology (1)

Prerequisite: PSYC 100. An introduction to parapsychology and experimental methods used in that field. Topics include the history of parapsychology, superstition and science, ESP in the laboratory, evidence for life after death, and reincarnation. Rival explanations for phenomena are considered critically.

PSYC 307H Sleep and Dreams (1)

Prerequisite: PSYC 100. An introduction to the clinical, cultural, and research aspects of sleep and dreams. Topics include historical and theoretical approaches to sleep and dreams, sleep deprivation and disorders, biological rhythms, typical dreams, and dream interpretation.

PSYC 307U Military Psychology (1)

Prerequisite: PSYC 100. An introduction to the basic principles of and issues in military psychology. The selection and training of personnel, the interaction of soldiers and machine systems, the development of organizations, the use of psychology in warfare, and the clinical implications of military organizations are considered. Direct application of research to implementation in the field is also addressed. Students may receive credit only once under this course title.

PSYC 308 Special Topics in Psychology: Social Science Theme (1–3)

Prerequisite: PSYC 100. Seminar discussion of topics of current interest. The areas explored may extend or augment those covered in more general topical courses. May be repeated to a maximum of 6 credits when topics differ.

PSYC 308K Introduction to Black Psychology (1)

Prerequisite: PSYC 100. An introduction to issues and perspectives in the study of the psychological development of Black people, particularly in America, over the past 100 years. Topics include the Afrocentric and Eurocentric ethos; the nature of Black personality as affected by slavery and racism; psychological assessment, treatment, and counseling techniques; and the relationships between psychological research and social policy in American and Western research.

PSYC 309 Special Topics in Psychology: Clinical Science Theme (1–3)

Prerequisite: PSYC 100. Seminar discussion of topics of current interest. The areas explored may extend or augment those covered in more general topical courses. May be repeated to a maximum of 6credits when topics differ.

PSYC 309B Great Cases in Psychology (1)

Prerequisite: PSYC 100. An introduction to great case histories in psychology from clinical and literary points of view. Elements of case histories covered include effective structure and style, historical and cross-cultural perspectives, and developmental issues. Other types and examples of case histories come from biographical, socioclinical, and nosological aspects of psychology and psychiatry.

PSYC 309C Psychology of Eating Disorders (1)

Prerequisite: PSYC 100. An introduction to the current research on eating disorders—anorexia nervosa, bulimia nervosa, and obesity. Topics include adolescent eating behavior, theoretical explanations, factors associated with eating disorders, and the general management of disorders.

PSYC 309D Holistic and Medical Psychology (1)

Prerequisite: PSYC 100. A study of the mind-body connection and its relevance to sickness and health. Topics include the "placebo effect" and its relevance to today's medicine and prevention as a major focus in today's health care environment.

PSYC 309H Psychological Consequences of War and Violent Conflict (1)

Prerequisite: PSYC 100. A study of the effects of war on various groups of vulnerable people using a case example. Theoretical bases and issues are emphasized in order to better understand the development of disorders, the expression of these disorders, and treatment and rehabilitation.

PSYC 309N Group Psychotherapy (1)

Prerequisite: PSYC 100. An introduction to basic issues about group psychotherapy as a modality for psychotherapeutic treatment. Emphasis is on technique and the practical problems faced by the group therapist (such as selection of appropriate clients, introduction of clients to the group, resistances, and role of the facilitator).

PSYC 309S Introduction to the Psychology of Parenting (1)

Prerequisite: PSYC 100. An overview of psychological issues relevant to parenting. Key theories and relevant research findings that directly apply to effective and ineffective parenting are presented Practical lessons in grand, step, and single-parenting; learning disabilities; the influence of media and technology; and cross-cultural aspects are considered.

PSYC 310 Perception (3)

Prerequisite: PSYC 100; PSYC 200 and 305 recommended. A survey of phenomena and theories of perception. Topics include the psychological, anatomical, physiological, and environmental factors important in determining how humans perceive the world. Historical background and contemporary research are examined.

PSYC 315 Motivation (3)

Prerequisites: PSYC 100 and 301; PSYC 200 and 305 recommended. A study of the interaction of physiological, neurological, and pharmacological aspects of motivation with environmental influences such as culture, learning, and social dynamics. Relevant issues (such as aggression, sex, achievement, and cognition) are discussed.

PSYC 332 Psychology of Human Sexuality (3)

(May be applied toward a specialization in behavioral and social sciences.) Prerequisite: PSYC 100. A survey of historical and contemporary psychological views on a wide variety of sexual behaviors. Topics include theory and research on the interrelationship of life-span psychological development, psychological functioning, interpersonal processes, and sexual behaviors. Political and social issues involved in current sexual norms and practices are also discussed.

PSYC 334 Psychology of Interpersonal Relationships (3)

(Fulfills the civic responsibility requirement.) Prerequisite: PSYC 100; PSYC 200 and 305 recommended. A study of research and theory on the development, maintenance, and dissolution of human relationships, followed by consideration of practical applications. Processes critical to successful relating (such as communication, bargaining, and resolution of conflict) are central topics. Focus is also on issues that are specific to troubled dyadic relations of equal partners (such as jealousy, spousal abuse, and divorce).

PSYC 335 Psychology of Men (3)

Prerequisite: PSYC 100. A survey of the biology, life-span development, socialization, personality attributes, mental health factors, and special problems of men.

PSYC 336 Psychology of Women (3)

Prerequisite: PSYC 100. A survey of the biology, life-span development, socialization, personality attributes, mental health factors, and special problems of women.

PSYC 337 Community Psychology (3)

Prerequisite: PSYC 100. A survey and critical examination of the interrelationship of environmental factors and variations in individual functioning. The effects of social process and social structure on the mental health of individuals in community life are evaluated. Discussion covers both theoretical models and other topics in community psychology.

PSYC 339 Educational Psychology (3)

Prerequisite: PSYC 100. An overview of educational psychology focusing on processes of learning. Measurement of differences between individuals (in intelligence, styles of thinking, understanding, attitudes, ability to learn, motivation, emotions, problem solving, and communication of knowledge) is investigated, and the significance of those differences is discussed. Problems in the field are introduced and outlined. Examination of research in educational psychology supplements study. Students may receive credit for only one of the following courses: EDHD 460, PSYC 309J, or PSYC 339.

PSYC 341 Introduction to Memory and Cognition (3)

Prerequisite: PSYC 100; PSYC 200 and 305 recommended. An introduction to the basic models, methods of research, and findings in the fields of memory, problem solving, and language. Applications as well as theory are explored.

PSYC 342 Psychology of Aggression (3)

Prerequisites: PSYC 100 and 221; PSYC 305 recommended. An exploration of the psychology of aggression. Topics include theories of violence and aggression, the classification, treatment, and modification of antisocial behavior, and the development of conscience and prosocial behavior.

PSYC 345 Group Dynamics (3)

Prerequisites: PSYC 100 and 221; PSYC 200 and 305 recommended. An analysis and exploration of psychological forces in small-group behavior. Issues of growth, conflict, and successful performance are considered. Emphasis is on the application of rigorous scientific theory and research to the impact group dynamics has on real organizational and community problems. Topics include group development, team building, sports psychology, multicultural influence, social advocacy, and leadership. Students may receive credit for only one of the following courses: PSYC 309A, PSYC 345, or SOCY 447.

PSYC 353 Adult Psychopathology (3)

Prerequisite: PSYC 100; PSYC 200 and 305 recommended. An examination of mental disorders among adults. The identification and diagnosis of specific disorders are covered; etiology and treatment are investigated. Students may receive credit for only one of the following courses: PSYC 331, PSYC 353, or PSYC 431.

PSYC 354 Cross-Cultural Psychology (3)

(Fulfills the civic responsibility or international perspective requirement.) Prerequisite: PSYC 100; PSYC 200 and 305 recommended. An exploration of cultural components of theory and research in the fields of personality, social psychology, and community psychology. The interplay of individual, ethnic, and cultural factors in psychosocial growth and well-being, as well as in cross-cultural and cross-ethnic communication, are stressed. Counseling and psychotherapeutic interactions are discussed.

PSYC 355 Child Psychology (3)

Prerequisite: PSYC 100; PSYC 200 and 305 recommended. A survey of research and theory of psychological development, from conception through childhood. Physiological, conceptual, and behavioral changes are addressed, with attention to the social and biological context in which individuals develop. Students may receive credit for only one of the following courses: PSYC 333, PSYC 355, or PSYC 433.

PSYC 356 Psychology of Adolescence (3)

Prerequisite: PSYC 100; PSYC 200, 305, and 355 recommended. A description of adolescent development according to research and theory. The physiological, intellectual, and social changes of the teen years are viewed as interrelated, and the systems dealing with those changes are examined.

PSYC 357 Psychology of Adulthood and Aging (3)

Prerequisite: PSYC 100; PSYC 200 and 305 recommended. An overview of the development of physiological, intellectual, and interpersonal social functioning from early adulthood through the aging years. The dual theme is that of stability and change. Theory and research are studied, and their implications are discussed.

PSYC 361 Survey of Industrial and Organizational Psychology (3)

Prerequisite: PSYC 100; PSYC 200 and 305 recommended. A general survey of the field of industrial/organizational psychology. Topics include entry into the organization (recruitment, selection, training, socialization); organizational psychology (motivation, attitudes, leadership); and productivity in the workplace (quality of work, performance appraisals, absenteeism, turnover). The role that the larger environment plays in influencing behavior and attitudes on the job is also considered.

PSYC 370 Foundations of Forensic Psychology (3)

Prerequisite: PSYC 100; PSYC 200 and 305 recommended. A survey of psychological research and theory dealing with behavior in the criminal trial process. Topics include jury selection, criminal profiling, eyewitness testimony, prediction of violent behavior, and mental competency of the accused.

PSYC 385 Health Psychology (3)

Prerequisites: PSYC 100; PSYC 305 and 337 (or PSYC 353) recommended. A study of psychological principles applied to the promotion and maintenance of health, the prevention and treatment of illness, and changing public opinion about health-related matters. Behavioral components of health risk factors and improvement of the health care system are addressed.

PSYC 386 Psychology of Stress (3)

(May be applied toward a specialization in behavioral and social sciences.) Prerequisite: PSYC 100. An examination of the forces that define and determine the stress response. Stress is studied as the product of the interactions of one's social structure, occupational status, and psychological and physiological levels of well-being. The psychological perspective is brought to bear on the stresses produced by work organizations, political climate, definitions of achievement, socioeconomic pressures, and the conflicts of those circumstances with ethical and moral values. Practical applications discussed include the constructive use of stress management techniques and the relationship between stress and illness. Students may receive credit for only one of the following courses: BEHS 463 or PSYC 386.

PSYC 391 Introduction to Neuropsychology (3)

Prerequisites: PSYC 100, 200, and 301 (or PSYC 305), or permission of faculty member. An examination of how the human brain governs and influences cognition, language, memory, and emotion. Principles of the organization of the brain and the interaction of the brain and behavior are presented. Clinical, developmental, and experimental factors in psychological assessment of disorders are also considered. Students may receive credit for only one of the following courses: PSYC 307A or PSYC 391.

PSYC 402 Physiological Psychology (3)

Prerequisites: PSYC 100 and 301; PSYC 200 and 305 recommended. An introduction to research on the physiological basis of human behavior. Sensory phenomena, motor coordination, emotion, drives, and the neurological processes of learning are covered.

PSYC 403 Animal Behavior (3)

Prerequisites: PSYC 100 and 301; PSYC 200 and 305 recommended. An inquiry into the social interactions, learning, sensory processes, motivations, and other aspects of animal behavior. Study explores experimental methods. Emphasis is on the behavior of mammals.

PSYC 415 History of Psychology (3)

(Fulfills the historical perspective requirement.) Prerequisites: PSYC 100 and two upper-level psychology courses. A study of the origins of psychology in philosophy and biology and the development of psychology as a science in the 19th and 20th centuries. Current theoretical perspectives and experiments are considered in relation to the enduring problems of psychology, as well as the roles of culture, science, and technology in the development of psychological ideas.

PSYC 424 Communication and Persuasion (3)

Prerequisites: PSYC 100 and 221; PSYC 200 and 305 recommended A study of the effect of social communication on behavior and attitudes. Theory and research concerning social influence and change of attitude are examined.

PSYC 432 Introduction to Counseling Psychology (3)

Prerequisite: PSYC 100. A survey and critical analysis of research and intervention strategies developed and used by counseling psychologists. Historical as well as current trends in content and methodology are examined.

PSYC 435 Personality Theories (3)

Prerequisite: PSYC 100. A study of major theories and perspectives on personality, including trait, psychodynamic, behavioristic, and humanistic theories. Methods of personality research and relevant findings are also introduced and applied to real-world settings.

PSYC 436 Introduction to Clinical Psychology (3)

Prerequisite: PSYC 100. A survey of diagnostic and therapeutic strategies employed by clinical psychologists. The scientist-practitioner model is emphasized through the critical analysis of theories and empirical research that provide the foundation for determining effective treatments of mental disorders.

PSYC 441 Psychology of Human Learning (3)

Prerequisite: PSYC 100; PSYC 200 and 305 recommended. A review and analysis of the major phenomena and theories of human learning. Conditioning, the application of behavior analysis to real-world problems, and laboratory techniques in learning research are also presented.

PSYC 442 Psychology of Language (3)

Prerequisites: PSYC 100 and 341; PSYC 200 and 305 recommended. An introductory survey of psycholinguistic research, theory, and methodology. Emphasis is on the contribution of linguistic theory to the psychological study of linguistic behavior and cognition. Linguistic theory and the psychological studies of syntax and semantics are presented. Topics include the biological basis of the grammars of language and speech, phonetics and phonological performance, and the perception and production of speech. The role of language as part of cognitive development is assessed, and the relation of language comprehension to thought is analyzed.

PSYC 443 Thinking and Problem Solving (3)

Prerequisites: PSYC 100 and 341; PSYC 200 and 305 recommended. A survey of topics in the psychology of thinking and problem solving. Current theories, data, and research on methods of problem solving are studied in light of the historical development of this field. Major concepts of inquiry include formal problem-solving theory, computer models of thinking and human problem-solving behavior, and strategies for sharpening thinking processes and making problem-solving behaviors more effective.

PSYC 446 Death and Dying (3)

Prerequisites: PSYC 100; PSYC 357 and 432 recommended. An exploration of the psychological effects of death and dying on human behavior. Death-related variables are identified and evaluated as to their contributions to the development of individual differences across the life span. Topics include current research and clinical findings on anxiety, depression, guilt, conflict, and defense mechanisms, as well as death education and bereavement counseling. Students may receive credit only once under this course title.

PSYC 451 Principles of Psychological Testing (3)

Prerequisites: PSYC 100 and 200; PSYC 305 recommended. An examination of basic concepts and theories of psychological assessment, including test development. Social, legal, cultural, and ethical considerations in psychological testing are also discussed.

PSYC 462 The Psychology of Advertising (3)

(May be applied toward a specialization in behavioral and social sciences.) Prerequisite: PSYC 100; PSYC 361 recommended. An analysis of advertising in terms of psychological theories and observations of consumer behavior. The information and fundamental insights presented regarding advertising provide understanding of consumer motivation. The analysis of the purchase process includes environmental variables, the individual determinants of behavior, and the consumer's decision process. General theoretical principles in psychology are applied to the processes of identifying a target population and developing and evaluating an advertising plan, as well as determining the effectiveness of advertising. Students may receive credit for only one of the following courses: BEHS 462 or PSYC 462.

PSYC 464 Psychology of Leaders in Work Organizations (3)

Prerequisites: PSYC 100 and 361; PSYC 200 and 305 recommended. A study of the psychological assumptions and implications of various theories of management and leadership. The challenges examined include selecting and training workers, developing workers' careers, changing the behavior of managers, and influencing organizational processes. The ways managers' behavior is affected by the larger environment, the nature of the product or service, and the organizational structure are also considered.

PSYC 465 Psychology of Organizational Processes (3)

(May be applied toward a specialization in behavioral and social sciences.) Prerequisite: PSYC 100; PSYC 200 and 361 recommended. A review of various theories of interpersonal, intragroup, and intergroup relations. Emphasis is on issues of conflict, competition, and cooperation, in light of the role of power in organizations. Ways of diagnosing organizational problems, and intervention as a means of solving them, are explored. Students may receive credit for only one of the following courses: BEHS 411 or PSYC 465.

PSYC 466 Environmental and Ecological Psychology (3)

Prerequisite: PSYC 100; PSYC 200 and 305 recommended. An examination of the measurement, description, and impact of the physical environments that affect various aspects of cognition and social behavior in school, at work, and at leisure. Topics include responses to environmental stress and catastrophes, personal and space territoriality, urban living, and psychological solutions to everyday environmental problems.

PSYC 486A Psychology Field Experience Through Co-op (3)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in psychology. At least 12 hours per week must be devoted to new tasks for a total of 180 hours during the Co-op session; four new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to psychology and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

PSYC 486B Psychology Field Experience Through Co-op (6)

Prerequisite: Formal admission to the Co-op program An opportunity to combine academic theory with new, career-related experience in psychology At least 20 hours per week must be devoted to new tasks for a total of 300 hours during the Co-op session; five to eight new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to psychology and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

SOCY 100 Introduction to Sociology (3)

An introduction to the fundamental concepts and principles of sociology. The study of cultures, patterns of social values, social institutions, stratification, and social change is delineated. Students may receive credit for only one of the following courses: BEHS 102, BEHS 312, SOCY 100, or SOCY 311.

SOCY 201 Introductory Statistics for Sociology (4)

Prerequisite: SOCY 100 or equivalent. An overview of elementary descriptive and inferential statistics. Presentation covers constructing and percentaging bivariate contingency tables, discovering frequency distributions and presenting them in graphics, and calculating measures of central tendency and dispersion. Other topics are parametric and nonparametric measures of association and correlation; regression; probability; hypothesis testing; the normal, binomial, and chi-square distributions; and point and interval estimates. Students who receive credit for SOCY 201 may not receive credit for the following courses: BEHS 202, BEHS 302, BMGT 230, ECON 321, GNST 201, MGMT 316, PSYC 200, STAT 100, or STAT 200.

SOCY 227 Introduction to the Study of Deviance (3)

An introduction to the sociological study of deviant behavior. Topics include mental illness, sexual deviance, and the use of drugs. Students may receive credit for only one of the following courses: SOCY 227 or SOCY 327.

SOCY 243 Sociology of Marriage and Family (3)

A study of demographic trends in family and marriage, including childbearing and divorce, sociological theories of mate selection, marital interaction, and marital dissolution. Contemporary controversial issues, such as the relationship of unmarried couples, alternative marriage forms, abortion, and violence in the family, are discussed. Students may receive credit for only one of the following courses: SOCY 243 or SOCY 343.

SOCY 300 American Society (3)

A survey of the social structure and organization of American society, with special reference to recent social changes. The character, structure, values, and ideology of American social movements are examined from a sociological perspective. Topics include urban demographic changes and other population trends, as well as changes in the conduct of work, family life, and recreation.

SOCY 311 The Individual and Society (6)

(May be applied toward a specialization in behavioral and social sciences. Fulfills the international perspective requirement.) A study of interactions between the individual and society. Basic sociological concepts, theories, and methods of research are presented as they apply to the individual. Those means are used in examining how the individual is shaped by history, family, and the surrounding cultural environment. Another focus is the reciprocal relationship, whereby individuals modify the world around them and their ideas influence society. Students may receive credit for only one of the following courses: BEHS 312 or SOCY 311.

SOCY 312 Family Demography (3)

Prerequisite: 3 credits in sociology. A study of the family and population
dynamics. Issues of fertility (such as teenage pregnancy, the timing of parenthood, and the determinants and consequences of family size) are discussed as they relate to family behavior such as marital patterns, the use of child-care options, and the relationship between work and the family. Issues of policy as related to demographic changes in the family are also considered.

SOCY 325 The Sociology of Gender (3)

(Fulfills the civic responsibility requirement.) Prerequisite: 3 credits in sociology. An inquiry into the institutional bases of gender roles and gender inequality, cultural perspectives on gender, gender socialization, feminism, and gender-role change. Emphasis is on contemporary American society.

SOCY 331 Work, Bureaucracy, and Industry (3)

Prerequisite: 3 credits in sociology. A sociological approach to the world of work. Occupational careers and personal experiences in the bureaucratic organizations of modern industrial society are investigated.

SOCY 335 Sociology of Violence (3)

Prerequisite: 3 credits in sociology. An examination of collective domestic conflict and an evaluation of the sociological theories that explain why such conflict occurs. Topics include ethnic conflict, colonial insurrections, terrorism, coups d'état, and revolution.

SOCY 398 Special Topics in Sociology (3)

Prerequisite: 3 credits in sociology. A study of topics of special interest.

SOCY 403 Intermediate Sociological Theory (3)

Prerequisite: 6 credits in sociology. A study of major theoretical approaches to sociology, including functionalism, conflict, and symbolic interactionism. Original works of major theorists are examined in historical perspective.

SOCY 410 Social Demography (3)

(Fulfills the civic responsibility requirement.) Prerequisite: 3 credits in sociology. A study of social demography. Topics include types of demographic analysis, demographic data, population characteristics, migration, mortality, fertility, population theories, world population growth, and population policy.

SOCY 423 Ethnic Minorities (3)

(Fulfills the civic responsibility or international perspective requirement.) Prerequisite: 3 credits in sociology. An exposition of basic social processes in the relations of ethnic groups, immigrant groups, African Americans, and Native Americans in the United States and of ethnic minorities in Europe.

SOCY 424 Sociology of Race Relations (3)

Prerequisite: 3 credits in sociology. An analysis of race-related issues, focusing mainly on American society. Topics include the historical emergence, development, and institutionalization of racism; the effects of racism on its victims; and conflicts that are racially based.

SOCY 425 Gender Roles and Social Institutions (3)

(Fulfills the civic responsibility requirement.) Prerequisite: 3 credits in sociology. An investigation of the relationship between gender roles and the structure of social institutions (such as the economy, the family, the political system, religion, and education). Discussion covers the incorporation of gender roles into social institutions, perpetuation or transformation of gender roles by social institutions, and how changes in gender roles affect social institutions.

SOCY 426 Sociology of Religion (3)

A survey of the varieties and origins of religious experience and religious institutions. The role of religion in social life is explored.

SOCY 427 Deviant Behavior (3)

Prerequisite: 3 credits in sociology. An exploration of current theories of the genesis and distribution of deviant behavior. Topics include definitions of deviance, implications for a general theory of deviant behavior, labeling theory, and secondary deviance.

SOCY 430 Social Structure and Identity (3)

A study of theoretical issues in social psychology, focusing on social construction of identity. Identity formation and transformation in social processes and structural and cultural dimensions of social identity are covered.

SOCY 432 Social Movements (3)

Prerequisite: 3 credits in sociology. An examination of movements that seek change in the social and political structure of society. Topics include the origins, tactics, organization, recruitment, and success of such movements. Case studies feature movements in the areas of labor, civil rights, feminism, the environment, student and neighborhood activism, and gay rights.

SOCY 433 Social Control (3)

Prerequisite: 6 credits of sociology or permission of faculty member. A study of forms, mechanisms, and techniques of group influence on human behavior. Problems of social control in contemporary society are examined.

SOCY 434 Sociology of Personality (3)

Prerequisite: SOCY 100 or SOCY 105. A study of the development of human nature and personality in contemporary social life. Topics include processes of socialization, attitudes, individual differences, and social behavior. Students may receive credit only once under this course title.

SOCY 441 Social Stratification and Inequality (3)

Prerequisite: 3 credits in sociology. A sociological study of social class, status, and power. Topics include theories of stratification, correlates of social position, functions and dysfunctions of social inequality, status inconsistency, and social mobility.

SOCY 443 The Family and Society (3)

Prerequisite: 3 credits in sociology. An examination of the family as a social institution. Its biological and cultural foundation; its historic development, changing structure, and function; the interaction of marriage and parenthood; and the disorganizing and reorganizing factors in current trends are explored.

SOCY 461 Industrial Sociology (3)

A study of the sociology of human relations in American industry and business. Topics include complex industrial and business organizations as social systems and social relationships within and between industry, business, community, and society. Students may receive credit only once under this course title.

SOCY 462 Women in the Military (3)

A cross-national analysis of past, present, and future trends in women's roles in the military. Topics include the effects on women's roles in the armed forces by cultural forces, national security, technological changes, demographic patterns, occupational structures, labor shortages and considerations of efficiency and rationality.

SOCY 464 Military Sociology (3)

Prerequisite: 3 credits in sociology. An overview of social change and its effects on the growth of military institutions. The structure of complex formal military organizations is clarified. Military service is evaluated as an occupation or a profession. The sociology of military life as a distinct cultural ethos is probed. The interrelations of military institutions, civilian communities, and society are explored.

SOCY 466 Sociology of Politics (3)

Prerequisite: 6 credits in sociology. An introduction to the sociology of political phenomena, involving the basic concepts and major findings in the field. Topics include the relationship of the polity to other institutional orders of society and the relationship of political activity in America to the theory of democracy.

SOCY 473 The City (3)

Prerequisite: 6 credits of sociology or permission of department. A study of the rise of urban civilization and metropolitan regions. Topics include ecological process and structure, the city as a center of dominance, social problems, control, and planning.

SOCY 486A Internship in Sociology Through Co-op (3)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in sociology. At least 12 hours per week must be devoted to new tasks for a total of 180 hours during the Co-op session; four new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to sociology and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

SOCY 486B Internship in Sociology Through Co-op (6)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in sociology. At least 20 hours per week must be devoted to new tasks for a total of 300 hours during the Co-op session; five to eight new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to sociology and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

SOCY 498I Applied Sociology (3)

A practical application of the concepts, skills, and tools of sociology to analyze problems facing a variety of clients and organizations, including business, government, religion, and community agencies and groups. Sociological perspective and tools are used to identify, investigate, and actively seek solutions to issues of structure, process, and social change. Assignments include advanced reading and research.

SOCY 498Q Intercultural Sociology (3)

A study of social structures and cultural values comparing and contrasting societies that hunt and gather, those that garden and farm, and those that rely upon industrial production. The development of fully industrialized societies and countries (such as Korea and Brazil) that are still undergoing industrialization are compared. Assignments include advanced reading and research.

SPAN 101 Elementary Spanish I (4)

(Open only to students with fewer than two years of Spanish. Fulfills the international perspective requirement.) Introduction to the basic structures, vocabulary, and pronunciation of the Spanish language. Focus is on developing working proficiency in the four skills (listening, speaking, reading, and writing) using authentic text from native speakers. Practice is provided in finding and communicating information. Students who have received credit for SPAN 111 or SPAN 112 may not receive credit for SPAN 101.

SPAN 102 Elementary Spanish II (4)

(Fulfills the international perspective requirement.) Prerequisite: SPAN 101 or equivalent. Further study of the functions and structures of the Spanish language. Focus is on developing working proficiency in the four skills (listening, speaking, reading, and writing) using authentic text from native speakers. Practice is provided in finding and communicating information. Students may receive credit for only one of the following courses: SPAN 102 or SPAN 211.

SPAN 201 Intermediate Spanish (4)

(Fulfills the international perspective requirement.) Prerequisite: SPAN 102 or equivalent. Continued study of the functions and structures of the Spanish language. Focus is on developing working proficiency in the four skills (listening, speaking, reading, and writing) using authentic text from native speakers. Practice is provided in finding and communicating information, especially in workplace situations. Students may receive credit for only one of the following courses: SPAN 201, SPAN 203, or SPAN 212.

SPAN 318 Commercial and Workplace Spanish (4)

Prerequisite: SPAN 201 or equivalent Spanish proficiency. A study of business terminology, vocabulary, formats, and practices including a project in Spanish involving specific vocabulary, forms of professional communication, and cultural protocols relevant to the student's workplace or major. Emphasis is on everyday spoken and written workplace Spanish, using authentic readings from native speakers. Written and oral practice is provided in finding and communicating information, especially on commercial topics in business and other workplace situations. Students may receive credit for only one of the following courses: SPAN 315 or SPAN 318.

SPAN 486A Internship in Spanish Through Co-op (3)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in Spanish. At least 12 hours per week must be devoted to new tasks for a total of 180 hours during the Co-op session; four new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to Spanish and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

SPAN 486B Internship in Spanish Through Co-op (6)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in Spanish. At least 20 hours per week must be devoted to new tasks for a total of 300 hours during the Co-op session; five to eight new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to Spanish and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

SPCH 100 Foundations of Speech Communication (3)

(Prerequisite for all 300 or 400-level speech courses.) An over-view of the principles of communication. Verbal and nonverbal language, listening, group dynamics, and public speaking are highlighted. Emphasis is on applying communication principles to contemporary problems and preparing various types of oral discourse. Students may receive credit for only one of the following courses: SPCH 100, SPCH 100X, SPCH 101, SPCH 107, or SPCH 108.

SPCH 107 Speech Communication: Principles and Practice (3)

Study and practice in oral communication, covering principles of interviewing, group discussion, listening, informative briefings, and persuasive speeches. Students may receive credit for only one of the following courses: SPCH 100, SPCH 100X, SPCH 101, SPCH 107, or SPCH 108.

SPCH 125 Introduction to Interpersonal Communication (3)

An overview of the concepts of interpersonal communication. Topics include nonverbal communication, the relationship of language to meaning, perception, listening, and feedback.

SPCH 200 Advanced Public Speaking (3)

Prerequisite: A 100-level speech performance course. A study of rhetorical principles and models of speech composition. Principles are studied in conjunction with preparing and presenting particular forms of public communication.

SPCH 220 Small-Group Discussion (3)

A consideration of the principles, methods, and types of discussion. Principles are applied to the analysis of contemporary problems.

SPCH 222 Interviewing (3)

A presentation of the principles and practices used in the recognized types of interview. Special attention is given to behavioral objectives and variables in communication as they figure in the process of interviewing. Students may receive credit for only one of the following courses: SPCH 222 or SPCH 422.

SPCH 324 Communication and Gender (3)

(Fulfills the civic responsibility requirement.) An investigation of the way communication creates images of male and female. Consideration is given to what constitutes masculine and feminine characteristics, the differences between male and female behavior and styles in communicating, and the implications of those images and styles for interpersonal transactions.

SPCH 397 Organizational Presentations (3)

Prerequisite: A 100-level speech performance course. A study of techniques for planning small- and large-group presentations, including audience profiling and needs analysis Topics include listener patterns and preferences, presentation organization, confidence-building techniques, platform skills, and audio/video technology and presentation software, such as PowerPoint.

SPCH 420 Group Discussion and Decision Making (3)

Prerequisite: A 100-level speech performance course. A study of current theory, research, and techniques regarding small-group process. Group dynamics, leadership, and decision making are covered.

SPCH 424 Communication in Complex Organizations (3)

Prerequisite: A course in speech communication. An examination of the structure and function of communication in organizations. Organizational climate and culture, information flow, networks, and role relationships are major themes.

SPCH 426 Negotiation and Conflict Management (3)

(Fulfills the civic responsibility requirement.) Prerequisite: SPCH 100 or equivalent. A study of the role of communication in shaping negotiation and conflict processes and outcomes. Simulation and role play are used to model workplace practices.

SPCH 470 Listening (3)

A survey of theories of the listening process. Emphasis is on functional analysis of listening behavior. Students may receive credit only once under this course number.

SPCH 472 Theories of Nonverbal Communication (3)

Prerequisite: A course in speech communication. A survey of nonverbal communication in human interactions. Theory and research on proxemics, kinesics, and paralinguistic are recognized and identified in expressions of relationship, affect, and orientation both within and across cultures.

SPCH 482 Intercultural Communication (3)

(Fulfills the civic responsibility or international perspective requirement.) Prerequisite: A course in speech communication. An examination of the major variables of communication in an intercultural context. Topics include cultural, racial, and national differences; stereotypes; values; cultural assumptions; and verbal and nonverbal channels.

SPCH 486A Internship in Speech Through Co-op (3)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in speech. At least 12 hours per week must be devoted to new tasks for a total of 180 hours during the Co-op session; four new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to speech and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

SPCH 486B Internship in Speech Through Co-op (6)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in speech. At least 20 hours per week must be devoted to new tasks for a total of 300 hours during the Co-op session; five to eight new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. May be repeated upon approval of a new Learning Proposal that demonstrates new tasks and objectives related to speech and that continues to advance application of academic theory in the workplace. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

STAT 100 Elementary Statistics and Probability (3)

Prerequisite: MATH 107. Introduction to the simplest tests of statistical hypotheses; applications to before-and-after and matched-pair studies; and events, probability, combinations, and independence. Topics include binomial probabilities and confidence limits, as well as random variables, expected values, median, and variance. Explication extends to tests based on ranks, law of large numbers and normal approximation, and estimates of mean and variance. Students may receive credit for only one of the following courses: BEHS 202, BEHS 302, ECON 321, GNST 201, MATH 111, MGMT 316, PSYC 200, SOCY 201, STAT 100, or STAT 200.

STAT 200 Introduction to Statistics (3)

Prerequisite: MATH 107. An introduction to statistics. Topics include descriptive statistics, methods of sampling, tables, graphs, percentiles, concepts of probability, normal and chi-square distributions, sampling distributions, confidence intervals, hypothesis testing for one and two means, proportions, binomial experiments, sample size calculations, correlation, and regression. Applications in business, social sciences, and other fields are discussed. Students who receive credit for STAT 200 may not receive credit for the following courses: BEHS 202, BEHS 302, BMGT 230, ECON 321, GNST 201, MATH 111, MGMT 316, PSYC 200, SOCY 201, or STAT 100.

STAT 400 Applied Probability and Statistics I (3)

Prerequisite: MATH 141. An intermediate study of statistical theory. Topics include random variables and standard distributions, sampling methods, law of large numbers and the central-limit theorem, moments, estimation of parameters, and testing of hypotheses.

STAT 401 Applied Probability and Statistics II (3)

(A continuation of STAT 400.) Prerequisite: STAT 400. Explication of more advanced statistical concepts. Topics include sufficient and consistent estimators, minimum variance and maximum likelihood estimators, point estimation, and interval estimation. Applications include testing of hypotheses, regression correlation and analysis of variance, sampling distributions, sequential tests, and elements of nonparametric methods.

STAT 410 Introduction to Probability Theory (3)

Prerequisites: MATH 240 and 241. A discussion of probability and its properties. Presentation covers random variables and distribution functions in one dimension and in several dimensions, as well as moments, characteristic functions, and limit theorems.

STAT 450 Regression and Variance Analysis (3)

Prerequisite: STAT 401 or STAT 420. A study of statistical techniques, concentrating on one-, two-, three-, and four-way layouts in analysis of variance. Concepts and techniques presented include multiple-regression analysis, the Gauss-Markov theorem, fixed-effects models, linear regression in several variables, and experimental designs.

STAT 486A Internship in Statistics Through Co-op (3)

Prerequisite: Formal admission to the Co-op program. An opportunity to combine academic theory with new, career-related experience in statistics. At least 12 hours per week must be devoted to new tasks for a total of 180 hours during the Co-op session; four new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

STAT 486B Internship in Statistics Through Co-op (6)

Prerequisite: Formal admission to the Co-op program An opportunity to combine academic theory with new, career-related experience in statistics. At least 20 hours per week must be devoted to new tasks for a total of 300 hours during the Co-op session; five to eight new tasks must be delineated in the Learning Proposal; and the course requirements must be completed. Students may earn up to 15 semester hours in all internship coursework through Co-op toward a first bachelor's degree and up to 9 semester hours toward a second bachelor's degree.

THET 110 Introduction to the Theatre (3)

An introduction to the people of the theatre: actors, directors, designers, and backstage personnel. Topics include the core and characteristics of a script, theatrical forms and styles, and theatre history. Students may receive credit for only one of the following courses: HUMN 110 or THET 110.

THET 120 Acting I (3)

An introduction to basic acting techniques, with exercises to develop concentration, imagination, sensing abilities, and emotional memory. Textual analysis, character analysis, and scene study are introduced. Assignments include applying techniques to character portrayal by performing short scenes. Students may receive credit for only one of the following courses: HUMN 111 or THET 120.

THET 320 Acting II (3)

(A continuation of THET 120.) Prerequisite: THET 111, THET 120, or audition. Further study of the fundamentals of acting.

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

(Fulfills the civic responsibility requirement.) An interdisciplinary study of the status, roles, and experiences of women in contemporary society. Sources from a variety of fields (such as literature, psychology, history, and anthropology) focus on the writings of women themselves.

Graduate Course Descriptions

ACCT 610 Financial Accounting This course applies accounting theory in a strategic framework. Building on undergraduate accounting studies, the course provides an overview of relevant theory and serves as a foundation for other track courses. Critical thinking and the application of accounting concepts and principles will be developed in the areas of: the preparation and interpretation of corporate financial statements in accordance with 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. Current special interest topics include the impact of information technology on financial accounting and the valuation of and accounting for intellectual property.

ACCT 611 Management Accounting The control and decision-making methodologies used by management accountants in solving strategic problems for business are examined. Among the methodologies used in the course are break-even analysis, regression analysis, the balanced scorecard, activity-based costing/management, value chain analysis, total quality management, and performance evaluation/assessment. The topics covered range from ethical issues to product costing. All the quantitative methods explained in the course are used to help model business problems in a manner intended to provide the required insights for managers to make successful choices.

ACCT 612 Auditing Process Generally Accepted Auditing Standards (GAAS), as well as standards for attestation and other services, are examined in depth. Alternative audit models are evaluated for both their practical relevance as well as 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. Only students enrolled in the Accounting Track may take this course.

ACCT 613 Federal Income Taxation Federal Income Taxation is a case-study, problem-oriented examination of fundamental federal income tax concepts. The course will conduct in-depth explorations of tax issues and controversies. The course textbook includes many classic court cases, explanatory materials, and problems that examine the application of the federal tax laws to various taxpayer situations. The primary focus of the course is on applying tax laws as opposed to learning individual tax rules.   For example, while students might have learned in an undergraduate tax course that gifts are not included in the individuals gross income, students in this course will examine in detail the applicable criteria that determines when an item constitutes a gift. The course stresses methods of case analysis and research that are typically involved in tax planning and litigation. Important definitions, judicially created rules, and other tax conventions are explored in great detail through the study of each one's genesis and purpose. The course examines prime cases and 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 This course focuses on the use of information systems in the accounting process with an emphasis on computer systems and internal controls. This course will provide the student with 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. Among the topics covered are: the components of a contemporary accounting information systems (AIS); security and internal controls, particularly within Internet and e-commerce environments; traditional flowcharting and data-flow diagrams; computer networks; theory and application of relational databases; and relational database management systems (RDBMS). Students design an AIS using a commercial database software package.

ACCT 615 Capstone Accounting Course   The components of the CPA examination are systematically reviewed 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-track capstone project. Prerequisites include all core courses and five of the six remaining accounting track courses.

ADMN 600A Foundations of Management: Writing No listing

ADMN 600B Foundations of Management: Information Literacy   No listing

ADMN 600C Foundations of Management: Analytical Methods No listing

ADMN 601 Manager in a Technological Society   This course presents an overview of the fundamental concepts of organizational theory and design in the context of a post-industrial and increasingly global society. Integrated within the study of organizations are 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. Course content addresses essential concepts in organizational theory and design, including measuring effectiveness, organizational life cycles, options for organizational structure, and becoming the learning organization. The course provides a knowledge base upon which other core courses build.

ADMN 622 Integrative Supply Chain Management No listing

ADMN 623 Contemporary Logistics This course covers logistical issues, techniques, methodologies, andstrategies designed to enhance organizational efficiency. The coursespecifically examines the total cost approach to logistics; logisticalplanning and implementation; logistical concepts; systems relationships andintegration; demand forecasting; interplant movement; inventory management andcontrol; order management and processing; packaging; plant and warehouseselection; production scheduling; traffic and transportation management;warehouse and distribution management; recycling; and other logisticalstrategies, techniques, and methodologies.

ADMN 625 Organizational Communication & Group This course investigates the theories and research related to communication and group development within modern organizations. It examines definitions, models, and barriers, including structural, psychological, and technological factors. It investigates current issues, such as the impact of the global environment, cultural diversity, and virtual environments. It includes strategies and methods for managing conflict and managing change. Interpersonal, small group, and large group settings are addressed. Managerial application of the concepts is stressed.

ADMN 626 Purchasing and Materials Management An overview of the procurement and contracting cycle is provided with other organizational functions. Methods of purchasing and source selection are covered, 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.

ADMN 627 Legal Aspects of Contracting This course provides a study of 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. Issues such as employment contracts and reference checks, job descriptions and evaluations, employee termination, discrimination, age and handicap regulations, and substance abuse testing in the work place are considered. Additional topics of discussion include: Union and non-union environments, contracts, torts and product liability, business/white collar crime, and ethics in the work place. The course is intended to prepare managers with limited legal experience for dealing with these situations before they develop into work place crises.

ADMN 628 Contract Pricing and Negotiation No listing

ADMN 629 Strategic Purchasing and Logistics This course presents issues and methodologies related to strategic purchasing and logistics. The ethics, social responsibility, and accountability considerations in procurement, logistics, and contract management are among the major topics considered in this course. In addition, specific areas of study such as the professional development of staff, just-in-time management, electronic data interchange, vendor assessment and development, pricing and negotiation, and international procurement issues are presented.

ADMN 630 Financial Decision Making for Managers This course focuses on financial decision making in business, government, and not-for-profit organizations. Emphasis is placed on the application of financial and non-financial 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 are employed in the analysis of these decisions. Break-even analysis is used in profit planning. The cost of individual products and services is determined by activity-based costing procedures. Product mix and resource allocation issues are examined using linear programming. Discounted cash flow techniques are used to compare alternative investment opportunities, and the balanced scorecard provides a framework with which organizational performance can be evaluated. In addition, contemporary managerial systems, such as target costing and kaizen costing, are explored as a means of improving operational efficiency. Note: Students are expected to know the materials covered in USCP 620 Financial Accounting and USCP 621 Economics, including the concepts of opportunity cost, the time value of money, financial accounting, and financial analysis. Students may not enroll in both ADMN 630 and ADMN 631. Financial Management track students must enroll in ADMN 631.

ADMN 631 Financial Management in Organizations This course is the core course for students who choose the Financial Management track and for students who wish to take this course in lieu of ADMN 630. It focuses on financial management theory and applications in business, government, and not-for-profit organizations. Basic accounting concepts and their use in financial statement analysis are discussed. Discounted cash flow and rate-of-return analysis are used to evaluate projects. Break-even analysis is employed to measure the impact of changes in volume and costs. An introduction to scenario analysis, short- and long-term financial management, international finance, and operating budgets and their preparation is provided. Note: Students may not enroll in both ADMN 630 and ADMN 631. Financial Management track students must enroll in ADMN 631. Students without recent course work in accounting or economics are strongly advised to complete UCSP 620 (Financial Accounting) and UCSP 621 (Economics) before enrolling in ADMIN 631

ADMN 632 Financial Management of Current Operations The primary focus of this course is on the financial management of ongoing operations in organizations. The effects of various credit, inventory, accounts payable, and working capital policies on an organization are examined, as are alternative approaches for meeting short-term cash needs and working capital management. Also covered are short-term investment management and managing interest rate risk. The use of E-commerce applications to manage these functions is illustrated. (Students must take ADMN 631 before enrolling in this course.

ADMN 633 Long Term Financing of Organizations The long-term capital needs of an organization and the methods employed to meet those needs are addressed. Students examine and implement the capital budgeting decision process. Various types of long-term funding sources are analyzed, including term loans, debt and equity securities, and leasing. Alternate policies with regard to financial leverage, capital structure, and dividends are evaluated. Scenario and risk analysis are used to appraise alternative capital project opportunities. Note: Students must take ADMN 631 before enrolling in this course.

ADMN 634 Financial Markets and Investments Building on the content of ADMN 631, this course provides an in-depth exploration of the financial environment of organizations, the role of financial intermediaries, capital and money markets, types of financial instruments, investment portfolios, and financial derivatives. Students explore alternate sources for raising capital, calculate the cost of capital under different risk conditions, evaluate debt and equity instruments, and construct investment portfolios using various theories and models. Emphasis is placed on the application of financial decision-making tools for managers. Note: Students must take ADMN 631 before enrolling in this course.

ADMN 635 Organizational Leadership and Decision Making The overriding theme of this course is that the ability to lead and make decisions in an environment of continual change is crucial for the 21st century. Thus, this course focuses on four aspects of leadership: theory and research, individual and team perspectives, judgment and managerial decision making, and the global environment. Approaches to leadership such as power-influence, situational factors, individual traits, and behaviors are explored, as are various models of decision-making theory. Issues such as the relationship of management to leadership, the value of participative and charismatic leadership, the leader's role in organizational culture and organizational change, and the impact on diversity, are investigated from domestic and international perspectives. The increasing role of teams in organizational life and the ability to apply good judgment to decisions that pertain to supervisory, participatory, and team-leadership principles at appropriate points are discussed.

ADMN 636 Cost Management This course focuses on making decisions that improve organizational performance through better cost management. The need to improve cost efficiency is driven by increased global competition and investor emphasis on shareholder value. Cost management practices must be consistent with strategic goals and objectives. Cost efficiency can be achieved by analyzing and modeling managers' decisions on cost drivers. This course emphasizes a value-chain perspective, value-added analyses activity-based management, and economic-value-added concepts in its approach to cost management. All topics are linked through an integrated perspective of cost management and through examination of the practices of "real-world" global organizations. (Students must take ADMN 631 before enrolling in this course.

ADMN 637 Legal Aspects of Management This course provides a study of 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. Issues such as employment contracts and reference checks, job descriptions and evaluations, employee termination, discrimination, age and handicap regulations, and substance abuse testing in the work place are considered. Additional topics of discussion include: Union and non-union environments, contracts, torts and product liability, business/white collar crime, and ethics in the work place. The course is intended to prepare managers with limited legal experience for dealing with these situations before they develop into work place crises.

ADMN 638 Research Methods for Managers ADMN 638 presents techniques and methodologies related to the evaluation and utilization of organizational research and evaluation studies in making business decisions. Emphasis is placed on preparing the student to evaluate and utilize research-based information developed by other individuals. The focus of the course is on the analysis and interpretation of research-based materials in assessing the performance of individuals, work groups, and organizations. Areas of coverage include principles of good research design, measurement, appropriate sample size, evaluating research instruments, reviewing procedures for collecting and analyzing data, and evaluating and utilizing existing research-based materials in solving business problems. ADMN 638 provides the student with the approaches and skills necessary to evaluate research-based materials and their utilization in business decision making. This course provides the student with various approaches to data collection (including the Internet) and utilization that best serve the practical needs of the manager. Note: Students will be expected to know the materials covered in USCP 630 Introduction to Research Methods 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.

ADMN 639 Multinational Financial Management Financial management issues in multinational organizations are the focus of this course. Major 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 additional issues considered in the course. Note: Students must take ADMN 631 before enrolling in this course.

ADMN 640 Information Systems for Managers This course is designed for managers without a technical background in computers and information systems. Students review and evaluate 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. Students enrolled in the class are expected to have basic microcomputer skills. The theme of determining managers' needs for information, and procuring and using appropriate computer systems, is emphasized throughout the course.

ADMN 641 Information Systems Management and Integration This course is organized around the life-cycle perspective of the information system, from inception through systems development and integration, to system operation and maintenance. An overriding concern is 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.

ADMN 643 Systems Analysis and Design This course is designed to combine the areas of computer technology, systems analysis, systems design, and software application construction to aid the student in learning current techniques and practices in the requirements specification, analysis, and design of information system applications. The course is oriented toward the formal specification of the information system's logical and physical analysis and design.

ADMN 644 Decision Support and Expert This course is designed to provide the student with an understanding of computer applications for management support. In addition to the technologies of decision-support systems and expert systems, the organizational factors leading to the success or failure of such systems are introduced. Other topics addressed include group decision support systems, integration and implementation issues, and related advanced technologies such as neural networks.

ADMN 645 Information Tech, the CIO, & Org This course examines 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.

ADMN 650 Organizational Decision Making This course is a capstone seminar in which the applied behavioral aspects and the impact of the continuous changes affecting post-industrialized society are linked to the key organizational function known as decision making. The course integrates previous coursework in organizational structure, global competition, technology impacts, applied research, strategic planning, finance issues, communication theory, and organizational leadership. Problem solving and creativity models as related to effective, practical, and applied decision making in organizations are discussed. Students focus on effective decision strategies, ensuring decision quality, differences between group and individual decision making, and a variety of constraints facing decision makers. Utilizing a case approach to integrate earlier coursework, the course enhances decision-making skill by providing students with the opportunity to analyze the effects of various decision strategies on organizational outcomes. Moreover, students learn to use technology to enhance their research and decision-making skills. Prerequisites: ADMN 601, 603, 625, 630 or 631, 635, and 638. Note: ADMN 650 is open only to students who have already completed ADMN 603. Students who have taken ADMN 603 must take ADMN 650; all other students are required to take ADMN 651.

ADMN 651 Strategic Management This is the capstone seminar, which investigates how strategy interacts with and guides an organization within its internal and external environments. Emphasis is on corporate and business unit level strategy, strategy development, strategy implementation, and the overall strategic management process. Key elements examined include organizational mission, vision, goal setting, environmental assessment, and strategic decision making. Techniques such as industry analysis, competitive analysis, and portfolio analysis are presented. Strategic implementation as it relates to organizational structure, policy, leadership, and evaluation issues are covered. The desired outcome is to improve the student's ability to "think strategically" and to weigh things from the perspective of the total enterprise operating in an increasingly global market environment. In addition to integrating prior core content areas through case analysis and text material, the course will give students familiarity with the problems and issues of strategy formulation through their participation in the Business Strategy Game simulation. Prerequisites: Completion of 30 credit hours, including all core courses.

ADMN 654 Not-for-Profit Financial Management Theories and practices of not-for-profit financial management and decision making, including budgeting, reporting requirements, nonprofit accounting, and financial standards are studied in detail. The role of financial management in maintaining the fiscal health and legal status of the not-for-profit organization is the primary focus. Emphasis is placed on budgeting, fund accounting, cash flow analysis, expenditure control, long-range financial planning, audits, and grant and contract management. Special attention is paid to compliance with not-for-profit accounting and financial management principles with reference to maintaining public access and ethical standards.

ADMN 655 Strategic Financial Management This is an integrative course for the Financial Management track, heavily oriented toward readings, discussion, and case studies and/or simulations using analytical tools developed in the track courses. Current topics reflect the changing environment for and the role of financial management in organizations. Such topics include measuring and implementing economic value added (EVA?); performance-based reward systems; diversification, restructuring, and strategic partnering; business-process reengineering; corporate governance; value-based management; strategic cost management; and ethics in financial management. Within the context of one or more of the topics covered in the course, students are required to analyze and make recommendations concerning a financial problem or opportunity at their workplaces or other approved organizations. Prerequisites: ADMN 631, 632, 633, 634, and 639. Note: This course is open only to students in the MSM (FM) track and students in the IMAN (FM) track.

ADMN 656 Not-for-Profit Organizations and Issues A framework outlining the roles and functions of the principal types of not-for-profit organizations is presented. Major characteristics are introduced that distinguish not-for-profit organizations from their counterparts in the private and public sectors. The challenges, opportunities, and common issues facing managers of not-for-profit 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 not-for-profit sector are examined.

ADMN 657 Not-For-Profit Law and Governance No listing

ADMN 658 Marketing, Development, and Public Relations No listing

ADMN 660 Commercial Transactions: Law, Mgmt & Proprietary RTS

Transfer Students are presented with legal issues and management methodologies related to commercial transactions in a technological environment. The law, ethics, accountability, and contract management considerations in the procurement of technology products and services are among the major topics considered in this course. In addition, specific areas of study such as 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 Are presented. Note: It is recommended that students complete ADMN 627 before enrolling in ADMN 660.

ADMN 661 Employee Relations This course investigates the rights and

responsibilities of employees and organizations in union and non-union environments in the United States. It reviews the legal framework, primarily at the federal level, and discusses strategic fit of the ER program/services within the organization. It explores
the current issues involved, such as equal employment opportunity, privacy, drug testing, wrongful discharge, health and safety, and pension and benefit plans. Public sector and global issues are included.

ADMN 662 Issues and Practices in Human Resources Mgmt This

introductory course provides an overview of the human resource management profession. It includes 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 included. Note: It is strongly recommended that Human Resource Management students take this course before taking the other courses in the track. This course is required for Human Resource Management students.

ADMN 663 Job Analysis, Assessment, and Compensation This course is

designed to familiarize the student with the interrelated aspects of human resource management. Topics include 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. Techniques are discussed 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. Consideration is given to the interaction of compensation, worker motivation, performance appraisal, and level of worker performance within the organization.

ADMN 664 Organizational Development and Change Issues, theories, and

methodologies associated with organizational development and the management of change are presented, with a major emphasis on organizational culture and organizational change processes. Areas of concentration 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.

ADMN 665 Current Perspectives on Hrd and Training
This course examines the theories, research, skills, and issues related to one major aspect of human resource development, the management of organizational training services. It discusses the role of training in the workplace and investigates adult learning models. It includes curriculum management, program development, and operation management with an emphasis on design and delivery issues. It considers the impact of technology, the global environment, and modern organizational structures. Ethical issues are discussed. Students develop training proposals or programs to demonstrate knowledge of the concepts.

ADMN 666 Recruitment and Selection
This course examines the initial phases of staffing, focusing on the hiring process. It investigates the contemporary roles, relationships, and processes of recruitment and selection in the human resource management system. It highlights productivity factors (such as the use of technology) and quality factors (such as legal, ethical, and validity issues). It includes 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.

ADMN 667 Managing Global Teams
This course is designed for HRM track students who have successfully completed at least 30 credit hours, including: ADMN 601, ADMN 625, ADMN 630, ADMN 635, ADMN 638, ADMN 662, and four additional HRM track courses (ADMN 661, 663, 664, 665, or 666). (ADMN 651, the interdisciplinary course, and a 6th HRM course do not have to be completed.) Excellent writing skills and familiarity with library systems are essential. Previous online group experience will be helpful. This seminar investigates key HRM and Organizational Behavior concepts and issues in each stage of group development. It focuses on the impact of characteristics commonly found in global teams: diversity, virtual communication, and contingent job designs. Students examine published research and field literature to identify what knowledge exists and what still needs to be learned. They discuss the key questions in these unfolding areas and the implications of the findings for applied management. Prerequisite: Completion of 30 credit hours, including ADMN 662, four HRM track courses, and all core courses except ADMN 651. Excellent writing skills and familiarity with library systems are essential. Previous online group experience will be helpful.

ADMN 668 Human Resource Technologies
This graduate level course provides an overview of leading HR technologies and how they should be selected, implemented, managed, and evaluated. This course is relevant for HR managers, senior-level HR professionals, HR strategists and consultants, and any HR professional interested in adapting HR processes and functions to modern technological applications. The course addresses such topics as best practices in HR technology deployment and management, and it encourages the alignment of HR technologies with corporate strategy. Leading HR technologies are covered, ranging from human resource information systems (HRIS) to "bolt on" applications and emerging technologies such as portals, kiosks, and wireless platforms. A wide variety of web-based applications is examined, including online recruitment, online assessment systems, e-learning, knowledge management platforms, and various applications to facilitate virtual team development. The course addresses funding needs for a technology-enabled human resources department, selecting vendors and consultants, and documenting a return on investment for HR technology acquisitions. Moreover, a series of self-development topics will be covered so that individuals will learn what it takes to transform from a traditional to a virtual HR professional. Note: Although it is not a requirement, it is recommended that students complete ADMN 662 before taking this course.

ADMN 685 Strategic Market Planning
No listing

ADMN 686 Marketing Management This course presents theory and practices related to the management of the marketing function as they would be applied by managers and administrators in organizations concerned with "business development." The course relates to the marketing of organizational products, programs, and services to either internal or external clients. Through analysis of case studies and spreadsheet exercises, the necessity of incorporating marketing functions with other business functions is demonstrated. The planning and implementation activities required to attain marketing goals for the organization are also emphasized. Topics addressed include the product/service mix, pricing, marketing communications such as advertising and sales promotion, and channels of distribution. The course also introduces control techniques for the overall marketing mix.

ADMN 687 Market Segmentation and Penetration This course is 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. Special emphasis is placed on the role of the communications strategy (for example., advertising, promotion, public relations) in achieving the overall marketing objectives.

ADMN 688 Marketing Intelligence and Research Systems Applications of cross cultural 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 are presented in this course. Methodologies and special topics related to the design and completion of marketing research projects are presented, including the survey, observational, and experimental methods used in assessing and segmenting markets. Special topics in data analysis that are especially useful for marketing research (that is, focus groups, customer visits, conjoint analysis, and multidimensional scaling) are covered. Note: It is strongly recommended that students take ADMN 638 before enrolling in this course.

ADMN 689 Integrated Direct Marketing This course presents a systematic approach to integrated direct marketing. Integrated direct marketing is a process of precision deployment of multiple media and sales channels (for example, publicity and public relations, advertising, direct mail, telemarketing, and field sales channels) that seeks to maintain contact with the customer at multiple points during the sales cycle and throughout the long-term relationship with the customer. Integrated direct marketing is an information-driven marketing process, managed by database technology that enables the marketers to develop, test, implement, measure, and appropriately modify customized marketing programs and strategies. Specific measurement tools and topics to be examined include life-time value, performance measurement, cost per million (CPM), and cost per response. Prerequisite: ADMN 638 or appropriate background in statistics is required.

ADMN 690 Management Project Students demonstrate their ability to structure and complete a major project that identifies and resolves an important management or organizational issue. Students report the results of their efforts in written and oral form. The project may be developed in cooperation with students' current employers or with some organization of their choice, provided there is no conflict of interest. The project is conducted under the direction of an on-site supervisor in cooperation with a faculty advisor. Students have two semesters within the 7-year time limit to complete the management project. Prerequisites: Completion of ADMN 651.

ADMN 690M Management Project No listing

AMBA 600 MBA Fundamentals   This course is designed to provide students with management fundamentals and an opportunity to improve their proficiency in the Web-based technologies used throughout the MBA program. The objective of this course is to prepare people with diverse academic and business backgrounds to work and learn effectively in an online environment.   There are assignments in statistics, financial accounting and the Theory of Constraints. Students also prepare a PowerPoint presentation and write a research paper. By the end of the course, students should have a good understanding of both the academic requirements and the technical skills necessary to succeed in the MBA program.

AMBA 600C MBA Orientation No listing

AMBA 601 Organizational and Management Processes This course introduces participants to the concepts and theories that are the essential building blocks of management thinking. These key themes are incorporated throughout the MBA program and will be further developed in subsequent courses. They are sequenced so that they build upon each other during the program. The core themes are: The manager as a leader, The manager as a systems thinker, The manager as a critical thinker, ethics and social responsibility, The organization as a global enterprise, Evolving business models.

AMBA 601C Organization and Management Processes No listing

AMBA 601D Organization and Management Processes (Dual) No listing

AMBA 602 Dynamics of Individuals and Groups at Work This course is designed to offer learning opportunities wherein students can evaluate the interplay of the nature, meaning, and value of work with individual, group, organizational and societal outcomes. It explores strategies and methods for aligning individual interests and organizational needs to reach organizational goals. Through readings, case analyses, exercises, presentations, and discussions, students analyze the philosophical, legal, psychological, and structural decisions that managers and leaders must make in managing the dynamic human element at work. The course   includes interpersonal skill development, with an emphasis on effective communication processes, to assist students in increasing their competence in successfully working with people.

AMBA 602D Dynamics of Individuals and Groups at Work No listing

AMBA 603 The Marketing of New Ideas The rapid pace of technological change, coupled with the globalization of business, has increased the competitive pressure on organizations to more quickly evolve their product and service offerings. Stable product design and long production runs are no longer the norm. Because product life cycles are now often measured in months rather than years, companies want to customize their products to sustain customer loyalty. This course discusses business development strategies from the perspective of the customer and investigates sources of new capital, which can be tapped to finance development efforts. Formulating effective marketing programs that address the continuous flow of new products is equally important. In particular, electronic commerce is becoming an increasingly popular distribution channel and is an integral part of the seminar. Finally, this course approaches the process of new product development from the perspective of how information is created and managed in organizations. Topic areas include: Innovation, Entrepreneurship, Knowledge management, product development, Marketing management and Electronic commerce.

AMBA 603D The Marketing of New Ideas (Dual)   No listing

AMBA 604 Technology and Operation No listing

AMBA 604D Technology and Operation Management No listing

AMBA 605 Economics of Management Decisions No listing

AMBA 605D Economics of Management Decisions (Dual) No listing

BIOT 640 Societal Issues in Biotechnology No listing

BIOT 641 Commercializing Biotech in Early-Stage No listing

BIOT 642 Selection & Evaluation of Biotechnology Projects Selection and Evaluation of Biotechnology Projects. This course applies the 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. Managing the safety aspects of biotechnology is stressed.

BIOT 643 Techniques of Biotechnology The Techniques of Biotechnology. This course offers a comprehensive review of the technologies in use today in biotechnology research and applications. Modern techniques used in genetic engineering, sequencing, cloning, etc. are discussed. The development and use of these techniques are placed in a historical context.

BIOT 644 Biotechnology & the Regulatory Environment The Regulatory Environment of Biotechnology. This course provides a comprehensive review of the role of regulation in biotechnology products and products and services development and commercialization. The role of the federal government, state government agencies, international bodies and professional groups is emphasized. Specifically, the regulatory role of the US Environmental Protection Agency, the US Department of Agriculture (APHID), the Department of Labor (OSHA), the Department of Health (Specifically NIH) is emphasized. The role of good laboratory practices and good manufacturing practices is analyzed.

BIOT 645 The Business of Biotechnology No listing

BIOT 646 Bioinformatics Efficient experimental techniques have led to an exponential growth of data in biotechnology. Today, the emphasis is switching from the accumulation of data to their analysis and interpretation. Computational tools for classifying sequences, large databases of biological information, computationally intensive methods, new algorithms, and machine learning unite to extract new concepts. This is the domain of bioinformatics. Specifically, the domain of bioinformatics includes new sophisticated DNA, RNA, and protein sequence analyses and pattern recognition and DNA computing, but also more traditional mathematical modeling, Bayesian probability and basic algorithms, machine learning and neural networks, and Markov models and dynamic programming. Bioinformatics covers many subjects, among the most important are the analysis of macromolecular sequences, tri-dimensional structures, phylogenic relationships, and genomic and proteomic data.

BIOT 671 Capstone Capstone   The capstone course integrates all the knowledge accumulated through the previous courses into the concept of the business cycle. The class focuses on best practices as demonstrated through case studies. Working in teams, students develop a comprehensive business plan or market plan for a new biotechnology venture for a real company. This course also integrates cross- cutting issues such as learning organization, the

changing nature of work, entrepreneurship, technology trends, communication, creativity, and innovation. Students may enroll in the class only after completing at least 27 of the required 36 credits (including all 21 credits of the other core courses). To fulfill the elective requirements students may select any four courses from a list of approved electives for this program. At present the electives are in the area of technology management and address such areas as financial management, marketing, and human resources in technology-based organizations. In the future, elective course will be developed that deal in greater depth with the scientific, policy, and business aspects of biotechnology.

CSMN 601 Issues, Trends & Strategies for Computer Sys Mgt A study of the technological advances in computer systems and in the many environments affected by advancing technology is presented. Problems relating to ethics, security, the proliferation of databases, risk analysis, telecommunications, artificial intelligence, and human-machine interaction are examined. The rapid development of computer-based information systems in response to management needs, as well as trends and developments in the field, are discussed. Note: This course is strongly recommended as the first course for CSMN students.

CSMN 614 Data Structures and Algorithms This course introduces the definitions, implementations and applications of the most basic data structures used in Computer Science, including the concept of abstract data types. The course also introduces the basic formalism and concepts used in the analysis of algorithms and in algorithm design. The relative efficiency of the algorithms studied is estimated by informal application of these ideas. The algorithms and data structures discussed include those for sorting, searching, graph problems, dynamic programming, combinatorial search and others.

CSMN 615 Hardware and Software Systems Interrelationships between hardware and software from technical, operational, and system points of view are examined. An architectural review of selected hardware systems, virtual memory management, operating systems, disk performance optimization, analytic modeling, and distributed operating systems is presented.

CSMN 616 Distributed Computing Topics central to the design and management of distributed computing systems, including distributed synchronization and resource sharing, concurrency control in distributed databases, distributed simulation languages for distributed computing, management proof techniques for distributed systems, and distributed operating systems are covered.

CSMN 617 Principles of Programming Language The course explores the theory and implementation of modern programming languages. Topics include the attributes of a good language, programming environments (for example, batch, interactive, real-time, network, and embedded systems), language syntax, various grammar types, data types, object-oriented structures, sequence control, subprogram control, and parallel programming. The properties of programming languages are illustrated using examples from current languages such as Fortran, Cobol, C, C++, Pascal, Ada, Prolog, and Java. Prerequisite: Calculus I or equivalent.

CSMN 618 Knowledge-Based Systems This course covers the identification, creation, and use of knowledge-based systems (KBS) from an applied approach. Cognitive science, formal logic, and finite automata are highlighted throughout. KBS studies will focus on three types of knowledge products: 1) Identification and classifications system; 2) Planning and scheduling systems; 3) Prediction systems. Using the case –study approach, the course explores the area of knowledge acquisition and crafting of domain-specific knowledge based applications using various processing technologies with representation methods. Case studies will concentrate on material related to: 1) Internet; 2) Census 2000 data; 3) Daily stock market information. Prerequisite: Calculus I or equivalent.

CSMN 635 Systems Development and Project Control The purpose of this course is to provide a thorough understanding of the systems development life cycle as it applies to large hardware and software systems. The course discusses various approaches to system development, including the traditional waterfall model (system analysis, system design, system implementation, and system use and evaluation), spiral model, and prototyping. Computer-aided software engineering is also examined. An important aspect of this course is the integration of the principles of project management (time, money, and quality) with the discussion of the system development life cycle.

CSMN 636 Telecommunications and Connectivity The fundamentals of data communication systems and technologies are examined. Students explore these technologies from the perspective of the current and future public-switched network, wide area networks, and local area networks. Also addressed are network architectures, networking standards, digital and analog signals, and the various transmission media. Future trends in data communication concepts, equipment, applications, and services, including the open systems interconnection (OSI) model, T-1/T-3 multiplexers, fiber optics, integrated voice/data equipment, "intelligent networks," and the Integrated Services Digital Network (ISDN) are also discussed.

CSMN 639 Multimedia and the Internet Multimedia presentations are regarded as essential, strategic components of an organization's competitive advantage via its World Wide Web presence. Established principles of software development life cycles, aesthetics of typography and layout, benchmarking, and human factors research are applied to analyzing and critiquing Web sites as well as writing successful Web site development plans. Site management issues and consumer research methods are surveyed. The course's technical component emphasizes information theory, basic Web page design techniques, standards for representing common media formats in data files, compression algorithms, file format translation tools, transmission protocols, hardware requirements and standards, and system constraints. Java, CGI scripts, virtual reality, and other ancillary methods are touched upon, but no programming is required. Note: This course cannot be completed using the computer laboratory facilities. It requires a current multimedia PC with ample hard disk capacity and Internet connectivity. CSMN 601 or TLMN 602 is a prerequisite for this course; CSMN 636, TLMN 610, or TLMN 620 are desirable precursors.

CSMN 655 Information Risk Assessment and Security Mgmt The proliferation of corporate databases and the development of telecommunication network technology as gateways or invitations to intrusion are examined. Ways of investigating the management of the risk and security of data and data systems are presented as a function of design through recovery and protection. Issues of risk and security, as they relate to specific industries and government, are major topics in the course. Examples are presented of how major technological advances in computer and operating systems have placed data, as tangible corporate assets, at risk. Quantitative sampling techniques for risk assessment and for qualitative decision making under uncertainty are explored.

CSMN 661 Relational Database Systems This course introduces the fundamental concepts necessary for the design, use, and implementation of relational database systems. The course stresses the fundamentals of database modeling and design, the languages and facilities provided by database management systems, and the techniques for implementing relational database systems. The course has an emphasis on relational databases, but includes the network and hierarchical data models. Semantic modeling and functional data modeling concepts are also included. Various database design techniques, implementation concepts, and techniques for query optimization, concurrency control, recovery, and integrity are investigated. There will be an online laboratory component for this course.

CSMN 662 Advanced Relational/Object-Relational DB Systems Building on the foundation established in CSMN 661, advanced concepts are explored in this course. The course provides students with advanced knowledge in 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. There will be an online laboratory component for this course. Prerequisite: CSMN 661 or equivalent.

CSMN 663 Distributed Database Management Systems No listing

CSMN 664 Object-Oriented Database Systems This course will offer both theory and applications of object-oriented database systems. Conceptual frameworks for data abstraction, encapsulation, inheritance, polymorphism, extensibility, generic programming, information hiding, code reusability, modularity, and exception handling will be studied. The course ill provide students with an overview of both existing object-oriented databases (OODB), including examples of their use and comparison of their strengths and weaknesses, and emerging OOBB concepts and systems. After a survey of OODB's, three representative ones are selected for closer scrutiny. C++ will serve as the primary data manipulation language. A brief overview of the language, its power, and its limitations is presented.

CSMN 665 Data Warehouse Technologies This course will introduce the concepts needed for successfully designing and implementing a data warehouse. The course provides the technological knowledge base for data model approaches such as the star schema and renormalization, issues such as loading the warehouse, performance challenges and other concepts unique to the warehouse environment. The course will include an online laboratory component.

CSMN 666 Database Systems Administration This course will introduce the knowledge, skills, and tools needed to successfully administer operational database systems. The course provides the conceptual and operational tools for analysis and resolution of problems such as performance, recovery, design, and technical issues. Tools used to assist in the administration process will be included.

CSMN 681 Cryptology and Data Protection No listing

CSMN 683 Intrusion Det., Incident Resp., & Comp Forensics No listing

CSMN 690 Computer Systems Management Project Students demonstrate their ability to structure and complete a major project that identifies and resolves an important management or organizational issue. Students report the results of their efforts in written and oral form. The project may be developed in cooperation with students' current employers or with some organization of their choice, provided there is no conflict of interest. The project is conducted under the direction of an on-site supervisor in cooperation with a faculty advisor. Prerequisite: CSMN 660. Two Course Option Instead of the management project, students may take two additional courses from the approved list-one interdisciplinary course (3 credits) and one elective course (3 credits).

CSMN 690M Management Project - 1 Credit No listing
DMGT 701A Systems Thinking and Organizational No listing
DMGT 701B Epistemology and Research Methods No listing
DMGT 701C Critical Thinking and Organization Theory No listing
DMGT 702A Leadership in the Info & Knowledge Intensive Era No listing
DMGT 702B Technology and Socio-Economic Systems Design No listing
DMGT 702C Strategic Innovative Management for International Competitive.. No listing
DMGT 711 Quantitative Research Methods This class serves as the foundation for doctoral students preparing for quantitative research; the materials covered in this course will be an assessment of statistical and quantitative management research techniques. The major goal of the quantitative research course is to ensure students have the tools they need to conduct research needed for their doctoral dissertations and for the workplace. Students completing this class should also be able to perform doctoral level quantitative assessments and evaluations of management and organizational functions.

DMGT 712 Qualitative Research Methods Qualitative research concerns the meaning of social action, rather than the prediction or control of events, and the cultural and sociological context within which action occurs. In this course, qualitative methodologies for analyzing organizational settings relevant for program development, managerial decision making, technology adoption, marketing and policy are presented with reference to ethno-methodology and ethnography. Techniques for the design and implementation of qualitative methods are assessed. Special attention is paid to the analysis, translation, and interpretation of qualitative data. Students are introduced to a variety of qualitative techniques that includes focus groups, content analysis, and directed conversations.

DMGT 783 Adv. Topics in Information & Telecommunications This seminar, intended primarily for students whose specialty areas is Information Systems, examines advanced topics in information technology (IT). Topics covered include business IT integration, using IT as a competitive advantage, return on investment (ROI), and outsourcing. Also studied are the IT system requirements for scalability, reliability and security. The seminar emphasis emerging IT technologies including data warehousing, data mining, artificial intelligence, wireless infrastructures and future uses of Internet technology.

DMGT 785 Futures and Change Management This interactive seminar discusses how to affect organizational change in light of major trends. Class members will learn how to employ tools designed by futurists in order to assess the potential impact of trends on their organizations and develop a plan of action. Focusing on an industry or organization of his or her choice, each student will conduct in-depth research on the trends affecting that organization or industry: and prepare a publishable paper describing those trends.

DMGT 790 Special Topics This Independent Study in Selected Topics (DMGT 790) is the "wild card" for an individual study under the guidance of a faculty member in anything that promotes that we are "thinking outside the box." Part of it can be designing or/and teaching a topic; part of it can be preparing a knowledge sharing document; and the like. The key factor to keep in mind is that it is a 'doctoral level work'.

DMGT 795 Special Studies

This Independent Study in Selected Knowledge Area (DMGT 795) is an individual study under the guidance of a faculty member for an agreed upon "knowledge search work and scholarly documentation." This requires a thorough investigation on one or a number of interrelated topics, concepts, and methodologies that are most likely to contribute significantly in the formulation of the student's doctoral dissertation research framework. It may be useful to keep the following in mind for designing DMGT 795: (1) Identify core and peripheral technologies for major transformation/service activities. (2) Undertake comprehensive review of global best practices for selected operations. (3) Assess current knowledge gap for specific technological innovation problem solution.

DMGT 797 Independent Study in a Selected Knowledge Area

This Independent Study in Selected Problem Area (DMGT 797) is an individual study under the guidance of a faculty member for an agreed upon "problem search work and scholarly documentation." This requires a thorough investigation on a problem area of mutual interest. It may be useful to keep the following in mind for designing DMGT 797: (1) Define the application area and provide the rationale for technological innovation related decision-making in the class of organizations for which the study is focused. (2) Assess significant opportunities and threats in the international competitive environment. Determine the innovation characteristics of your chosen organization class/type. Undertake technological SWOT analysis for a particular organization to answer the questions   Where do we want to go? Where are we now? (3) Evaluate competitive technology intelligence and perform technological foresight analysis. Develop a conceptual framework to identify technological innovation options   What do we have to change to get there?

DMGT 799A Concept Paper & Dissertation Proposal Prep. No listing

DMGT 799B Dissertation Proposal Defense & Conference Paper No listing

DMGT 799C Dissertation Research & Drafting Publishable Pap No listing

DMGT 799D Dissertation Research Completion & Final Defense No listing

DMGT 799E Post Coursework Continuing Registration   No listing

ECOM 610 Introduction to E-Commerce

The rapid growth of E-Commerce (EC) affects the way lines of business and every functional group are run within an enterprise. This introductory course provides an overview of both the strategic and the technical essentials of what managers need to know in order to manage and lead an EC initiative. Topics covered include: definitions of EC; a brief history of EC; EC business models; the role of technology; economics of information goods; virtual value chain; electronic markets; impact of EC on organizational strategy and industry structure; in-depth assessment of successful EC strategies; legal, social, ethical, regulatory and other emerging issues related to EC; and electronic communities and virtual organizations. The course also presents an outline of the technologies that enable EC, including: telecommunications technology trends; portals and search engines; web site design and management; EDI and XML; electronic payment systems and security; web access to databases; ERP and CRM software; and EC servers.

ECOM 620 E-Marketing

The Internet has emerged as one of the most significant forces to affect marketing since the emergence of mass media. This course delves into the technologies and potential applications of the Internet with a focus on developing effective global marketing strategies using the web as a medium. Website development, attracting and managing website traffic, use of email, Internet regulatory issues and development of Internet marketing strategies are explored in depth.

ECOM 630 Information Risk Assessment &Security The proliferation of corporate databases and the development of telecommunication network technology as gateways or invitations to intrusion are examined. Ways of investigating the management of the risk and security of data and data systems are presented as a function of design through recovery and protection. Issues of risk and security, as they are related to government and specific industries, are major topics in the course. Examples are presented of how major technological advances in computer and operating systems have placed data, as a tangible corporate asset, at risk. Quantitative sampling techniques for risk assessment and for qualitative decision making under uncertainty are explored.

ECOM 640 Internet Principle and Applications This course examines both the technological bases and applications of the Internet. The first part of the course studies Internet technology including packet networking, TCP/IP, and Internet security and authentication (e.g. firewalls, encryption, virtual private networks), Internet 2 and IPV6. The second part of the course reviews Internet applications and their evolving use for multimedia transmission (such as voice over the Internet), private and leased service IP networks, e-commerce, data warehousing, and data mining. Finally, policy issues such as universal service and access are examined.

ECOM 650 E-Commerce Applications and Operations This course provides an understanding of EC applications and operations. The course covers technical topics such as the Internet, Intranet, Extranets, Portals, and search engines. Students learn the role of Enterprise Resource Planning (ERP) as the e-business backbone, supply and selling-chain management tools, Customer Relationship Management (CRM), outsourcing, e-procurement, and electronic payment systems. In addition, the course covers the fundamental applications associated with electronic end-to-end business, including e-mail and other messaging technologies, electronic document management, workflow, data warehousing and data mining, knowledge management, and other decision support systems. Finally, the course covers management issues such as collaboration, strategic alliances, just joint ventures and other methods to achieve strategic advantages and sustained operations.

ECOM 660 E-Commerce Financial Management and Accounting This course focuses on evaluating e-commerce/information technology investments being considered by an organization. The time value of money, discounting techniques, and option pricing principles are applied to EC investment opportunities in a strategic context. Additional topics covered include financial management processes and activities significantly affected by the implementation of EC technologies in organizations, such as accounting systems design, activity based management applications, risk management as it pertains to internal controls, and the use of intelligent agents.

ECOM 670 Social, Legal, Ethical, and Regulatory Issues This course focuses on the protection of intellectual property on electronic networks through trademarks, copyrights and patents. Privacy and liability issues will be 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 EC applications is developed.

ECOM 680 E-Commerce Application Software This course examines application software for business-to-business and business-to-consumer e-commerce. Initially studied are 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). Also studied are transaction processing software tools including intelligent agents. Specific business-to-business transaction exchange methods reviewed include Electronic Data Interchange (EDI) and Electronic Funds Transfer (EFT).

ECOM 681 E-Government No listing

ECOM 690 E-Commerce Capstone   The capstone course integrates all the knowledge accumulated through the previous courses. The class focuses on best practices as demonstrated through case studies. Working in teams, students develop a comprehensive business plan or a market plan for a new Internet venture with a real company. This course also integrates cross-cutting issues such as learning organization, the changing nature of work, entrepreneurship, technology trends, communication, creativity, and innovation. Students may enroll in this class only after completing at least 27 of the required 36 credits.

ENER 602 Energy Economics This course familiarizes students on the effect of energy and its costs on industry and the national economy. Global markets for energy are examined along with supply, demand, pricing, and market structure.   The cost driving mechanisms for energy including investments and competition are also examined.

ENER 646 Environmental/Energy Law & Policy Development This course will examine U.S. environmental and energy law and policy, including its development, implementation, and enforcement, legislative, executive, and judicial perspectives and the roles and impacts these institutions have made on environmental and energy law and policy are analyzed. Leading laws and their ensuing policies, such as the National Environmental Protection Act, and the Clean Air and Clean Water Acts, 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 will be examined.

ENVM 641 Environmental Auditing Methods for attaining statutory, regulatory, and permitting compliance are examined. The protection of workers and other stakeholders is also examined in the context of organizational, budgetary, and other constraints. 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 hazard waste management laws, and pollution prevention initiatives-are emphasized.

ENVM 643 Environmental Communications and Reporting The range of communication practices required for environmental managers in the fulfillment of legal, regulatory, ethical, and organizational responsibilities is examined. The various populations with whom environmental managers must communicate and interact are identified and examined, including plant supervisors, corporate executives, regulators, the legal community, civic groups, labor unions, and the media. The types of communication discussed range 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 This course will examine U.S. environmental and energy law and policy, including its development, implementation, and enforcement, legislative, executive, and judicial perspectives and the roles and impacts these institutions have made on environmental and energy law and policy are analyzed. Leading laws and their ensuing policies, such as the National Environmental Protection Act, and the Clean Air and Clean Water Acts, 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 will be examined.

ENVM 646 Environmental/Energy Law & Policy Development This course will examine U.S. environmental and energy law and policy, including its development, implementation, and enforcement, legislative, executive, and judicial perspectives and the roles and impacts these institutions have made on environmental and energy law and policy are analyzed. Leading laws and their ensuing policies, such as the National Environmental Protection Act, and the Clean Air and Clean Water Acts, 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 will be examined.

ENVM 647 Environmental Risk Assessment This course is designed to acquaint managers with the basic concepts of risk assessment. It examines 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 an exploration of 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 The basic concepts of environmental chemistry, physics, geology, and risk are introduced. Environmental systems are presented in the study of the gaseous, liquid, and solid effluents from various industrial activities, while management methods and the statutory and regulatory requirements of major federal environmental laws affecting this management are considered. Additionally, this course provides the student with the basic vocabulary of the field and an understanding of fundamental principles relating to the transport and fate of contaminants and industrial wastes. Note: This course is intended for students lacking a strong science background or experience in the environmental field.

ENVM 649 Principles of Waste Mgmt & Pollution Control This course introduces the student to various methods of waste management including waste collection, transportation, recycling, treatment and disposal, and environmental monitoring. The course also focuses 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 included.

ENVM 650 Land and Water Resource Management This course introduces the student to the development of multiple-use resource management strategies and the role of public policy in land and water resource management. Free markets, market failure, and distributional equity issues are examined. The Public Trust Doctrine, Native American Trust responsibilities, and land use regulations are also examined. Enforcement of land and water restrictions, ex-post-liability schemes, and public purchase of private land and water rights are examined as approaches to land and water management.

ENVM 651 Watershed Planning Management No listing

ENVM 652 Principles of Air Quality Management This course presents management techniques for addressing air quality issues and managing air quality programs. The course focuses on 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 670 Seminar In Environmental Management
The capstone course for the Environmental Management program requires students to integrate knowledge gained in program courses for the solution of environmental management problems encountered in industrial, commercial, institutional, and military organizations. The course focuses on management guidelines, including 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 on balance with socio-economic goals. Case studies are used to illustrate applications of environmental management systems to various types of organizations. For the capstone project, students are required to assess the efficiency and effectiveness of an environmental management system at an organization and develop recommendations for improvement.

ENVM 690 Environmental Management Project
Students must demonstrate their ability to structure and complete a major project that identifies and resolves an important management or organizational issue. Results of their efforts are reported in written and oral form. The project may be developed in cooperation with the student's current employer or with some other organization of the student's choice, provided there is no conflict of interest. The project is conducted under the direction of an on-site supervisor in cooperation with a faculty advisor. Students have two
semesters to complete the management project. Prerequisites: Completion of 30 semester hours of graduate coursework and ENVM 670. Two-Course Option (6)Instead of the management project, students may take two additional courses from the approved list-one interdisciplinary course (3 credits) and one elective (3 credits).

ENVM 690M Management Project
Students must demonstrate their ability to structure and complete a major project that identifies and resolves an important management or organizational issue. Results of their efforts are reported in written and oral form. The project may be developed in cooperation with the student's current employer or with some other organization of the student's choice, provided there is no conflict of interest. The project is conducted under the direction of an on-site supervisor in cooperation with a faculty advisor. Students have two semesters to complete the management project. Prerequisites: Completion of 30 semester hours of graduate coursework and ENVM 670. Two-Course option (6) instead of the management project, students may take two additional courses from the approved list-one interdisciplinary course (3 credits) and one elective.

HCAD 600 Introduction to Health Care Administration
This course will introduce the student to management thought as the foundation for health care administration. Tracing the evolution of management principles and practices, students will explore the basis for health care administration. The management of global health care systems, the relevance of technology in the health care industry and the need for innovation and creativity in health care administration will be emphasized. Course outcomes also will focus upon increasing the student's abilities to master graduate level critical thinking, writing

HCAD 610 Information Technology for Health Care Admin This course provides a management perspective of information technology (IT) and how health care administrators can use IT to maximize organizational performance. Fundamental principles of information technology and data management and their implications for health care administrators will be reviewed. The use of technology, data bases and other analytical tools to structure, analyze and present information related to health care management and problem solving will be explored. Strategic information systems planning, systems analysis, system design, evaluation and selection will also be explored. Current applications, such as patient care, administrative and strategic decision support, managed health, health information networks and the Internet, will be examined to determine how they may be used to meet the challenges facing health care administrators today and in the future. The course will also focus on the legal and ethical issues related to IT and their practice implications for the health care administrator.

HCAD 620 The U.S. Health Care System A comprehensive examination of the complex, dynamic, rapidly changing health care system in the United States is presented. The health care system's major components and their characteristics are identified, with an emphasis 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 systems in industrialized and developing nations. An analysis of current trends in health care and prospects for the future is included.

HCAD 630 Public Health Administration This course is designed to acquaint students with the field of public health, emphasizing leadership and management. It is geared toward analyzing the current U.S. public health system, focusing on federal, state, and local public health entities. Major topics covered include the history of public health; epidemiology; the condition, issues, and problems of the US public health system; core public health functions; and the politics and financing of public health. Field contact in a public health setting for the purpose of analyzing a public health program or policy may augment text and lecture presentations.

HCAD 640 Financial Management for Health Care This course focuses on the financial management of health care organizations and stresses the basic economic models used in the United States. The course describes the American health care market and the attendant concepts of financial management of health services organizations within that market. The issues of free market and mixed market economies, regulation, licensure, certification, and other barriers to free market economies are examined, as are various insurance mechanisms. In addition, there is extensive discussion of the major financial issues of health care organizations, including reimbursement mechanisms, managed care, capitation, per-case or per-diagnosis payment, how these are packaged by third party-payors, and the effects reimbursement types have on health care provider organizations. The course also focuses on financial problems and how health care providers should respond to financial problems such as uncompensated care, cost increases, increased competition, and increased regulation. Issues of working capital, capital budgeting and investment in relation to net present value and value added to the organization, health care organizations' ratio analysis, cost analysis, and other financial management techniques of primary importance to health care organizations are discussed. Note: Students without a knowledge of finance are required to take ADMN 630 or ADMN 631 before enrolling in HCAD 640.

HCAD 650 Legal Aspects of Health Care Administration
This course deals with the law and legal process as applied to the practice of health care administration. The principles of health care law, with an emphasis on contracts and torts, are discussed. Topics addressed 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 & Mgmt
The internal organization and management of health care institutions are examined. The diverse topics covered include health care management, organizational theory and design, managerial roles, performance measures, and controls. In addition, issues relating to strategic planning and organizational adaptation to changing environmental conditions are studied. Through the case study approach, students have the opportunity to utilize problem resolution and decision-making skills in solving typical problems facing managers in health care organizations.

HCAD 670 Long-Term Care Administration
Long-term-care administration encompasses 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. This course focuses on the management of skilled nursing, intermediate care, and long-term-care facilities; the management of day care, residential care, social HMOs, and community-based programs; and home health services. Textbooks and readings are supplemented by case studies in management of long-term-care services and facilities.

HCAD 680 Special HCA Topics
No listing

HCAD 690 Health Care Administration Capstone Course
This course allows health care administration degree students the opportunity to integrate previous core and specialized health care administration graduate level courses in the development of a systems approach to health care administration. Focused on public and private health care delivery systems, the course will emphasize the future of health care, strategic decision making in the health care industry and alliances with internal and external environments. From a global perspective, students will employ health care industry cases, exercises, and business plans to demonstrate their competencies for health care administration now and in the future.

IMAN 601 Strategic Management in a Global Environment
A framework is developed for analyzing the competitive structure of industries, for ascertaining the direction of industry change, and for formulating strategy within an international context. Theories of competition and competitive strategy, and methodologies of strategy planning and analysis relevant to the major national and regional business environments, are examined. Organizational and functional issues are discussed, including transnational company structures, the role of marketing, finance, trade, technology innovation, and the public-private interface in the formulation of firm strategy. Note: This course is strongly recommended as the first course for IMAN students.

IMAN 605 Intercultural Leadership and Communication
Leadership and communication skills are essential for all managers, and applying these skills in an intercultural context is critical for managers operating in a global economy. This course focuses on leadership and decision making as well as organizational communications in a global intercultural environment. Theories of culture are examined and applied as they affect leadership style and practices as well as organizational communication across cultural groups. Team development and leadership will also be explored in an intercultural environment.

IMAN 610 Economics in a Global Context
Managers need a working knowledge of key economic principles and concepts to fully appreciate the issues they face in the globalizing world economy. This course is intended to be an economics refresher, enabling managers both to understand the complexities of From a problem-oriented perspective, students will examine how market structure (competitive to monopolistic) is an important determinant of market outcome and how economic systems (open-market to closed-protected economies) affect economic outcomes. Such economic concepts will be examined as: scarcity, opportunity cost, price and income elasticity, income distribution, market failures, role of government, unemployment, inflation, monetary and fiscal policy, comparative advantage, barriers to trade, exchange rates and the balance of payments the marketplace and to appreciate the implications of their decisions.   Note: Students will be expected to know the materials covered in UCSP 621, Economics including inflation, unemployment, recession, supply and demand, opportunity costs, comparative advantage, economic efficiency , and the time value of money.

IMAN 615 Foreign Investment & Strategic Alliances
An in-depth treatment of the more complex business strategies and transactions for con-ducting and expanding transnational business operations is offered. Tools of analysis include environmental scanning, stakeholder analysis, and methods for evaluating and managing a variety of strategies in an organizational and transactional context. The topics discussed include direct foreign investment, foreign subsidiary acquisition, technology transfer arrangements, licensing, franchising, joint ventures, and various types of strategic alliances and partnerships between companies based in different countries.

IMAN 620 International Marketing Research & Analysis
This course presents approaches to marketing research, data collection, and utilization that best serve the practical needs of the international manager. The focus is on the acquisition, analysis, and interpretation of data used in assessing the performance of individuals, work groups, and organizations in a competitive international environment. Methodologies and special topics related to the design and completion of organizational research and evaluation studies are presented, including the survey, observational, and experimental methods of assessing and segmenting markets. Students are introduced to the use of software in the analysis of research data.

IMAN 625 International Trade & Policy
The theory and conduct of international trade by transnational enterprises are explored. The effects of various multilateral trade agreements are analyzed. The evolution of the Bretton Woods system, the General Agreement on Tariffs and Trade (GATT), and the World Trade Organization (WTO), and the effects of these changes on international businesses are examined. National systems of trade laws and remedies are discussed, in addition to forms of trade and their documentation.

IMAN 630 International Financial Management
The theory and management of financial systems in international enterprises are examined, including the dynamics of the business system, operating funds management, and he methods of trade finance such as export-import financing and terms of payment. Also considered are the international framework of the monetary system, foreign exchange markets and balance of payment issues, and the role of governments and multilateral banking institutions in national, regional, and international capital markets. Note: It is strongly recommended that students take ADMN 630 or ADMN 631 before enrolling in this course.

IMAN 635 The Public Sector in International Commerce
Major issues of national competitiveness are covered, including the measurement of competitiveness and the role of the public sector in shaping competitiveness. This course also examines various domestic issues that affect the global competitiveness of businesses, such as antitrust, intellectual property protection, health and environmental policies, and nationalistic policies. The strategic conduct of government relations at the national, regional, and international levels is considered.

IMAN 640 International Marketing Management The fundamentals of marketing and its management in competitive global environments and diverse national economies are discussed. Major topics that are covered include demand analysis, product development, product pricing, marketing organization, foreign representation and distribution systems, promotion, advertising, and sales and service. Regulatory issues related to international marketing are reviewed.

IMAN 645 The International Legal and Tax International business transactions in the context of public and private international law and tax systems are reviewed. Comparative national and regional (European Community) legal systems, and a variety of commercial and corporate matters such as contract law and the transactional environment of business, are covered. The impact of competing investment laws, national tax issues including the protection of intellectual property rights, and the resolution of disputes through international litigation, arbitration, and mediation are discussed.

IMAN 650 Managing Overseas Operations This is the capstone course in international management. A wide range of management problems facing both large and mid-sized enterprises operating internationally is examined in depth. Special attention is paid to an integrative understanding of business functions and managerial control styles in strategy implementation, and to the financial evaluation of strategies and their impact on the organization and structure of international operations. Prerequisites: Completion of all core and track courses.

IMAN 661 Business Strategies For Europe No listing

IMAN 690 International Management Project Students demonstrate their ability to structure and complete a major project that identifies and resolves an important management or organizational issue. Students report the results of their efforts in written and oral form. The project may be developed in cooperation with students' current employers or with some organization of their choice, provided there is no conflict of interest. The project is conducted under the direction of an on-site supervisor in cooperation with a faculty advisor. Students have two semesters to complete the management project. Prerequisites: Completion of all required and elective courses, including IMAN 650. Two-Course Option (6)Instead of the management project, students may take two additional courses from the approved list-one interdisciplinary course (3 credits) and one elective (3 credits). Prerequisites apply.

IMAN 690M Management Project No listing

ITSM 637 Acquisition of Information Technology This course defines management practices for the acquisition of IT systems and information resources. Strong emphasis is placed on the importance of enterprise strategic planning and the concomitant IT strategic planning. Issues related to the development of the IT acquisition plan, financial planning and budgeting, integration of the proposed acquisition within the overall goals of the enterprise, and related IT program management are examined in the context of overarching management challenges. Related issues include federal and commercial IT systems contract and procurement policies and procedures. Students will use Microsoft Project project management software.

ITSM 670 Information Technology

This course integrates and applies the major concepts presented in all other coursework. Using casework methods, students will identify best practices and appropriate technologies to implement effective IT decisions aligned with organizational goals. Strong emphasis is placed on viewing information technology issues in a context of both day-to-day and strategic management decision making based on applied research. Issues include competitiveness, information architecture, user needs, process reengineering, value chain management, collaborative computing, globalization, social impact, information policy, and ethics. Emerging trends in information technology are analyzed to understand their potential effect on the workplace and society.

MSIT 610 Foundations of Information Technology

This course lays a common foundation for use in all other courses in the program. Its goal is to impart an understanding of how the many elements that make up information technology work and what their limitations are. The course reviews mathematical and physical concepts helpful in thinking about the capabilities of information technology and its applications. Mathematical concepts include information theory, the representation of signals in both the time and frequency domains, modulation schemes, digitization, and probability. Physical concepts include electromagnetic waves, the properties of various guided and unguided transmission media, integrated circuits, lasers, and optical transmission and switching. The course also introduces concepts essential to information security applications, such as various encryption schemes and measures for assuring personnel and physical security. Insofar as possible, these concepts will be treated descriptively rather than analytically.

MSIT 620 Computer Concepts

This course examines the major hardware and system software components and underlying technologies that are the basis of the modern digital computer. Major developments in the evolution of computers are reviewed first; theoretical and engineering topics include Boolean logic, the Von Neumann architecture, and semiconductor device technology. The similarities and differences between mainframes, minicomputers, and microprocessors are then investigated. Supercomputer, parallel processor, and distributed system architectures are examined. Various types of storage media and input/output devices are discussed. An overview of system software elements, including operating systems and middleware, is also presented. The course concludes by introducing the student to advanced topics such as optical computers and biomolecular computers.

MSIT 630 Concepts in Software-Intensive Systems

This course examines the technology, engineering practices, and business economics behind the wide variety of modern software-intensive systems. The foundations of software engineering are examined. Classes of application domains including real-time systems and transaction-based systems are analyzed. The practices used in developing small-scale and large-scale software systems are evaluated. Modern issues including design of the human-computer interface, software product liability, and certification of software engineers are discussed. The course concludes by investigating the structure, environment, and possible future of the software industry.

MSIT 640 Data Communications and Networks
The course begins with a study of data communication fundamentals. These include digital and analog signals; modulation; circuit and packet switching; multiple access schemes such as Frequency Division Multiple Access (FDMA), Time Division Multiple Access (TDMA) and Code Division Multiple Access (CDMA); and telecommunication standards such as the Open System Interconnect (OSI) Model. The course then moves to telecommunications networks with a review of Local Area Networks (LANs) including topologies; contention access methods; and inter-networking devices such as bridges, routers and gateways. Also covered are Wide Area Networks (WANs) including the Public Switched Telephone Network (PSTN), wireless networks such as cellular, Personal Communication Systems, and wireless data; the Integrated Services Digital Network (ISDN); X.25; Frame Relay; and Asynchronous Transfer Mode (ATM). Finally, the course examines the network convergence issue; that is, one network for data, voice, images, and video.

MSIT 650 Systems Engineering
Systems Engineering is an interdisciplinary approach to developing complex systems that satisfy a client mission in an operational environment. Information technology is at the heart of most systems. This course is an examination of the systems engineering process with special emphasis on computers and software systems. The course includes an overview of system theory and structures, elements of the systems 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. Case studies from the information technology domain will be used to illustrate the systems engineering principles.

MSIT 660 Internet Technologies
This course studies the Internet, addressing both its technological basis and its applications. The first part of the course studies Internet technology including packet networking, Transmission Control Protocol/Internet Protocol (TCP/IP), and Internet security and authentication (for example, firewalls, encryption, and virtual private networks), Internet 2, and IPV.6. The second part of the course reviews Internet applications and its evolving use for multimedia transmission (such as voice over the Internet), private and leased service IP networks, e-commerce, data warehousing, data mining, and policy issues such as universal service and access.

MSWE 601 Issues in Software Engineering
This introductory course to the program covers basic concepts and practices within the field important to both the practitioner and the theorist, as the rate of change in software engineering technology continues to increase. It also examines current issues in systems engineering, software architectures, product assurance principles, and software project management, all described in terms of established software process improvement models. Various industry life-cycle models are presented, with examples of their use. Case studies may also be included.

MSWE 603 Systems Engineering
This course examines the systems engineering process with special emphasis on software engineering as a discipline within systems engineering. The course includes 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. Prerequisite: MSWE 601 or permission.

MSWE 617 Software Engineering Project
This course may be considered as a comprehensive examination covering the application of the tools, skills, and techniques the students have acquired in the course of their studies. This course provides experience in applying software-engineering techniques by giving the students an opportunity to produce software when working in teams under the schedule constraints commonly experienced in industry. The instructor will emulate the vagueness shown by typical customers in describing requirements. The instructor serves as a guide and mentor, not as a traditional teacher. The students are expected to have acquired the knowledge of what to do and how to do it from the prerequisite classes. It is up to the students to form their own teams (organization) and schedule their work to meet the deadlines imposed by the contract (syllabus). Prerequisites: All core courses and at least two electives; or permission.

MSWE 635 Software System Development
The purpose of this course is to provide a thorough understanding of the development life cycle as it applies to large software systems. The course discusses various approaches to determining if the system implementation is correct during the traditional waterfall model (system analysis, system design, system implementation, and system use and evaluation), spiral model, and rapid prototyping. An important aspect of this course is the integration of the principles of project management, engineering, and quality concepts to illustrate how the principles of prevention of defects may be applied across the development life cycle. Prerequisite: MSWE 603 and TMAN 640 permission.

MSWE 645 System and Software Standards and Requirements
Major models of software requirements and specifications (sequential and concurrent systems), existing software standards and practices, and formal methods of software development are exa mined. A comparative survey of various languages and methods serves to emphasize similarities and significant differences. Additional topics covered include writing system and software requirements, formal specification analysis, formal description reasoning, models of "standard" paradigms, and translations of such models into formal notations. Prerequisite: MSWE 601 or CSMN 601 or permission.

MSWE 646 Software Design and Implementation
This course guides the student in 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. 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 are reviewed. Strengths and weaknesses of the development methods are covered, along with traceability to requirements and code. Prerequisite: MSWE 601 or CSMN 601 or permission.

MSWE 647 Software Verification and Validation
The evaluation of software for correctness, efficiency, performance, and reliability is addressed. Specific skills covered include program proving, code inspection, unit-level testing, and system-level analysis. The difficulty and cost of some types of analysis are examined in addition to the need for automation of tedious tasks. Problem-solving skills are stressed, especially in analysis of code. The textbook world is contrasted with the real world using case studies from the book and personal experiences. Industry attitudes toward reliability and performance are also discussed. Prerequisite: MSWE 601 or CSMN 601 or permission.

MSWE 648 Software Maintenance This course provides 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. 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 are additional topics of discussion. Prerequisite: MSWE 601 or CSMN 601 or permission.

MSWE 699 Advanced Topics in Software Engineering This course covers advanced topics selected by the faculty from the literature of Software Engineering to suit the interest and background of students. It may be taken for repeated credit up to a maximum of six credits. Prerequisite: MSWE601 and permission.

OMAT 601 The Contemporary School Issues and ideas related to contemporary secondary schools and today's adolescents are explored. Administration, structural factors, composition of the student body, methods of instruction, curriculum, security, legal factors, and issues related to physical plant are discussed. Other topics addressed include diversity, special education, quality pressures and initiatives, school violence, substance abuse, poverty, racism, the digital divide and technology fluency, and literacy and language issues. Teacher candidates are challenged to think critically about their role in the classroom and experiences with students.

OMAT 602 Adolescent Development Key concepts and theories related to human growth and development are examined. Particular emphasis is placed on adolescent development, including unique situations and challenges facing students and teachers in modern society. Legal, moral, and ethical issues and concerns related to teacher-student and peer interactions are explored. Characteristics that influence development and learning are analyzed through an ecological perspective. Various approaches, tools, and techniques are examined for their usefulness and value in helping to reach and engage adolescent learners.

OMAT 603 Curriculum, Instruction, and Assessment Theory and practice in curriculum design, instructional methods, and assessment for secondary education are examined. Classical and contemporary teaching theories are explored in depth for their applicability in the modern secondary classroom. Emphasis is placed on a broad spectrum of teaching techniques, development of reflective teaching practices, adaptation of learning activities to meet special needs, principles of effective classroom management, and modeling behavior. Teacher candidates spend approximately five weeks in a professional development school participating in guided observations and other school-based experiences. These practicum experiences are timed so they coincide with critical incidents in a typical school year.

OMAT 604 Subject Area Methods A variety of teaching methods such as cooperative learning, reflective teaching, inductive reasoning, and active learning are examined. Discipline-specific methods for teaching and learning are evaluated for their effectiveness. Best practices and innovative techniques in individual subject areas are emphasized. Teachers access and evaluate a wide range of curricular resources critical to their disciplines. Course projects are structured for practical application in the internship experience.

OMAT 605 The Diverse Learner The concept of the "diverse learner" is defined and various groups that are encompassed by this term are explored. Unique characteristics, educational support, and learning accommodations associated with diverse student needs are examined. Related demographic, social, and economic trends are woven throughout the course. Teachers develop and utilize strategies to integrate special needs students both academically and socially. A working understanding of the role and impact of special education legislation, including IDEA 97 and Section 504, is developed.

OMAT 606 Internship with Seminar Teachers apply concepts, techniques, methods, and theories learned in prior courses and field experiences. The teacher candidate spends a full semester in a professional development school working with a school-based teacher mentor and university mentor. This internship is a continuation of the initial field experience in OMAT 603. The online seminar is conducted throughout the internship semester and addresses topics important to new teachers such as the establishment of credibility in the classroom, parental involvement, support and referral services for students, instructional planning, and workload management. A teaching portfolio is developed for final review. Teachers must be available Monday through Friday during regular school hours and able to participate in additional school-based activities.

OMAT 607 Secondary Reading I Essential dimensions of secondary reading instruction are explored, including motivation for reading, cognitive strategies, and remediation. Other topics include appropriate reading materials, technology for reading instruction, assessment of content literacy, and relationships between vocabulary and concept development.

OMAT 608 Secondary Reading II A coherent literacy program that supports reading and writing across subject areas is developed. Methods and strategies for evaluating and adapting reading curricula for varying student needs are addressed. Teachers develop lesson plans that integrate appropriate reading materials to achieve specific subject-matter goals.

OMAT 609 Technology in Teaching and Learning   No listing

OMBA 605 Economics of Management Decisions The economic environment of an organization defines the threats to its survival and the opportunities for its future success. This course applies the concept of economic decision making to a wide range of management issues. The global economy is continually undergoing changes. Of special significance is the evolution of financial markets in response to rapidly expanding worldwide investment opportunities. This course provides for discussion and insight into these issues. Important valuation themes include the valuation of intellectual property and the valuation of businesses as a whole for the purpose of merger or acquisition. Increasingly, managers are restructuring financial information as well as supplementing it with non-financial information to better analyze the economic performance of their organizations. Several important techniques of performance evaluation are discussed-economic value added (EVA), the Balanced Scorecard, and throughput accounting. Cost management remains an essential topic within every organization and provides the framework to study activity-based costing. However, too much attention to cost often overlooks the key objective of every organization to increase the value it provides to the customer. Therefore, an organization's performance is also analyzed from the perspective of the theory of constraints. The course is divided into four modules: Financial statement analysis, Valuation, Performance measurement and Cost management.

OMBA 605D Economics of Management Decisions (Dual) No listing

OMBA 606 Organizations & the External Environment This course focuses
on the various types of business organizations and the public regulatory environments that shape organizational decisions. Emphasis is placed on the framework of relevant laws, regulatory structures, and public policies at local, state, national, and international levels that define the inner workings of business activities. The impact of law, regulation, and technology on corporate decision making will be key focus points in this seminar. Systems thinking, critical thinking, ethics and social responsibility, the impact of technology on management, the future of organizations, and global challenges are linked with the seminar's critical features. Increased student knowledge of and comfort with the nature of external business environments is a seminar goal. Topic areas include: Business and antitrust law, Regulatory environments, International trade, Macroeconomic policy, and Technology innovation.

OMBA 606D Organizations and The External Environment No listing

OMBA 607A Strategic Action Planning Strategy is concerned with value creation
and involves defining the scope of a firm's business operations, its corporate strategy, and determining how it will compete in its selected business(es), its business strategy. This course addresses the challenged of formulating and implementing strategy in both single-business and multi-business firms, from the perspectives of their top-level decision makers. It focuses on the overall firm, integrates concepts from functional areas of management, and explores the problem of the firm's strategic direction with respect to its external competitive environment and internal resources and capabilities. OMBA 607 is comprised of two, 3-credit seminars taken consecutively by students. OMBA 607A and OMBA 607B. All MBA students must take OMBA 607A Students with approved transfer credits and students pursuing a dual degree program may choose not to take OMBA 607B. Those with approved transfer credits may simply substitute those credits for OMBA 607B. Different perspectives on strategy; Analytical models and frameworks in strategy formulation; Building and sustaining competitive advantage; Growth and international strategies; Strategy implementation; corporate governance; Strategy in the New Economy.

OMBA 607B Elective Project   Under the supervision of a faculty member, students
design and complete a research project on a topic of their choice in the seminar. A key requirement is that the project must deal with a substantive management issue related to a real or proposed organization. Students can work on the project alone or in a team. Here are some examples of topics students could select for their projects: Develop a business plan for their employer (for their own venture); Carry out industry and competitor analysis for an organization; design an organization's business or corporate-level strategy, e.g., growth strategy, Design an organization's business- or corporate-level strategy, growth strategy, internationalization strategy, e-business strategy, and so forth; Study the competitive strategy, growth strategy, internationalization strategy, e-business strategy, and so forth; Study the competitive advantages of a specific region, state, or country; Design and complete an organizational assessment with change strategy as appropriate; Undertake a benchmarking study for an organization; design a balanced scorecard for an organization.

OMDE 601 Foundations of Distance Education
The goals of the course are to provide the student with a foundation of knowledge, skills and attitudes that are required by a competent practitioner of distance education. Students explore the critical concepts and issues identified in the distance education literature and critically examine the history and theories of the field. The course has been developed by Ulrich Bernath (Germany) and Eugene Rubin (USA) in collaboration with BÎrje Holmberg (Sweden) and Otto Peters (Germany).

OMDE 602 Distance Education Systems Distance education functions within the organizational structure of educational institutions, businesses, nonprofit organizations and government will be examined. Students analyze operational, logistic, and regulatory systems within distance education and training organizations. A range of theories pertaining to systems in general, systems in education, systems needs in distance education, and systems approaches to organizational development are introduced.

OMDE 603 Technology in Distance Education This course explores the role of technology in the design, development, and delivery of distance education. Students critically examine the relationship between technology and the goals of the educational/training organization. Various uses of technology are explored in the areas of course development, asynchronous and synchronous distance course delivery, and management/administration. The relationship of information technology and distance education is explored, and special emphasis is placed on computer-based technologies.

OMDE 604 The Management of DE 2: Leadership in DE This course introduces the student to the organization, management, and administration of distance education systems. Specific issues include roles (both traditional and unique), leadership, human resource management, employee relations, the role of information technology, student support services, faculty/staff development, inter-institutional collaboration, funding, delivery systems and policy. Both the education and business environments are explored in this course, and students gain understanding and skills that allow them to function effectively in either type of organization.

OMDE 607 Instructional Design & Course Development in DE This course examines the process of instructional design and development in a distance education and training context. Students critically evaluate the relationship between instructional design and technology. Various models of instructional and course development are considered (for example, large versus small scale course development, centralized versus decentralized course development, individual faculty/author versus team course development). Students apply the instructional development process by developing a small instructional unit. Special emphasis is given to Web-based instructional design and delivery.

OMDE 608 Student Support in Distance Education & Training No listing

OMDE 614 Intellectual Property and Copyright in DE This course will provide an overview of intellectual property issues, with an emphasis on the United States Copyright Law and the application of federal copyright principles to the distance education environment. The advent of the Internet along with the introduction of new technologies present new challenges to a system intended to balance the rights of both creators and users of copyrighted works. Although the law not unlike the technology will continue to develop in this area, this course will provide educators with a general framework for addressing difficult issues such as ownership of electronic course materials and use of copyrighted works at a distance. There will also be discussion of current events and the implications of the Digital Millennium Copyright Act.

OMDE 621 Training at a Distance This course examines the role of distance training in business, nonprofit, and government organizations. Students explore a wide variety of issues, problems and solutions in, the areas of: Web-based training, 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. Specific emphasis is given to the concept of the corporate virtual university and its design and operation.

OMDE 622 The Business Of Distance Education

Distance education/training is emerging within a highly competitive environment. Not only does the manager need to know about cost effectiveness issues, but also is often responsible for such issues as marketing (local, national, and increasingly world-wide), insourcing versus outsourcing, balancing the strong entrepreneurial focus of distance education within more traditional service-based organizations, and whether the distance education unit should be integrated or self-supporting. The course includes emphasis on the development of business and marketing plans and the use of common business analysis tools. In addition, students explore the rapidly expanding role of private and publicly traded education companies that are marketing new distance education products and services to the consumer market.

OMDE 623 Web-Based Learning & Teaching & The Virtual Univ

The virtual university is a new concept that has recently evolved as a result of the emergence of the World Wide Web as a means of delivering higher education. This course covers the brief history, definitions, and implementations of the concept of the virtual university in higher education, government, and business. The rapidly evolving literature of Web-based learning is explored, with special emphasis placed on Web-based pedagogy and course design. In addition, the impact of Web-based technologies is discussed. The student begins developing Web-based learning environments and uses Web-based communication tools.

OMDE 624 Student Support in Distance Education

Students are introduced to a variety of tutoring and student support systems, and explore various issues and critical concepts. Theories and frameworks related to tutoring and student support systems for different contexts are explored. Students learn and use a systems approach to problem solving to evaluate existing tutoring and student support systems. Functions such as recruitment, registration, tutoring, advising, counseling, study center models, planning and management, and access to library and information systems are explored. Students examine various systems of hiring, training, supervising, evaluating, and remunerating faculty, tutors, and student support personnel. Issues such as the use of local, regional, and central offices and study centers are discussed. The module has been developed by Jane Brindley (Canada) and Alan Tait (UK).

OMDE 626 Technologies for DE in Developing Countries

Distance education is a global affair. Most countries have national distance education efforts. Usually these distance education systems reflect the internal educational and cultural structure of the country, but increasingly these systems need to interact with the DE systems of other countries and cultures. This course considers the similarities and differences in a wide variety of distance education systems, institutions, and curricula across a variety of countries and cultures. European, Asian, Latin American, and North American models of distance education are explored. Students investigate the effect of political and cultural climate on national distance education policies. The course emphasizes the role of international organizations in promoting collaborative and cooperative projects and activities and a number of examples of cross-national projects are examined in depth.

OMDE 631 Advanced Tech in DE 1-Synchronous Learning Syst

This is an advanced course that builds upon OMDE 603 Technology in Distance Education. The course focuses specifically on synchronous (real time) technologies such as satellite broadcasting, microwave broadcasting, public TV broadcasting, audio conferencing, site-based video conferencing, desktop video conferencing, application sharing, chat tools, MOO's, MUD's, and Web-based technologies such as push, pull, real-time streaming audio and video, and large scale real-time Web broadcasting. Some technical details regarding standards-based technologies, telecommunications technologies, and computer technologies are examined so that students will be able to effectively manage the technical implementation of these tools.

OMDE 690 Distance Education Project and Portfolio   This required capstone course covers two significant tasks for students: 1) Create a personal distance education portfolio which will serve as an ongoing professional resource, as well as a useful job search tool and 2) Develop and document a case study/ project for an organization in the area of distance education and training. The purpose of this is to provide the student with an opportunity to display and practice a variety of skills and knowledge in the area of distance education and training.

OMED 600 Foundations of Technology in Teaching & Learning This course builds on the traditional concepts found in foundations of education courses, but incorporates how technology impacts and advances learning. Issues involving the history and evolution of technological innovations in education, ethics, and the use of technology for testing and assessment are addressed. Detailed topic explorations include collaborative, object-based, and museum learning principles; the integration of technology in the assessment of learning styles; and performance-based and standards- based curricula. Strategies for using technologies with special needs populations are also examined.

OMED 610 Digital Information Literacy for K-12 Educators Expertise is developed in the use and evaluation of a wide array of electronic information resources, including ERIC, LEXIS/NEXIS, Marco Polo, the World Wide Web, and numerous subject-specific databases. Teachers develop a portfolio of electronic references for use in curriculum design. Age and content appropriate exercises and assignments are developed to help build K-12 student information literacy skills. Teachers acquire a working knowledge of information resources in the field of education and in specific content areas to assist them 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.

OMED 620 Web-Based Learning & Teaching: Design & Pedagogy The theory that informs technology-enabled and Web-based education is examined with special attention on best pedagogical practices. Unique challenges related to original design and/or adaptation of Web courses are explored. Participants acquire knowledge and develop skills to create individual assignments, special classes, units, and entire courses that take full advantage of synchronous, asynchronous, and/or multimedia technology. Special emphasis is placed on creation of age, content, and context appropriate exercises for students in a diverse array of classroom situations. Teachers develop criteria and specific evaluation tools to assess student learning outcomes with different pedagogical approaches, delivery techniques, core content areas, and technologies. Teachers also examine and contribute to current and emerging technology-enabled curricular innovations.

OMED 630 Technology in k-12 Education: Syn, ASyn & Multi Serving as the technological foundation of this program, this course enables K-12 teachers to employ appropriate technologies in their classrooms and schools. Teacher-participants critically assess the capacity of a variety of technologies designed to meet specific content, delivery, and learner goals and objectives. Particular attention is paid to Web-based instruction. Teachers develop knowledge and skills in the application of such real time technologies as satellite broadcasting, audio conferencing, videoconferencing, synchronous chats, streaming audio and video, and in asynchronous technologies such as e-mail and list-servers.

OMED 640 Using Technology for Instructional Improvement

Teachers learn how to use 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 covered include Powerpoint, database programs, spreadsheets, electronic gradebooks, desktop publishing, portfolio development, and various types of educational software. Practical applications for the contemporary classroom are emphasized.

OMED 660 Admin of Tech Initiatives: Plan, Budget & Evaluation

Teachers gain a broad understanding 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. Teachers develop and evaluate criteria for making financial and instructional decisions about technology. A particular emphasis is placed on knowledge and skills teachers can use to acquire classroom technology, including grant writing and public-private sector partnerships.

PRPA 601 Public Relations Theory and Practice (3)

This course relates the management function of policy formulation to 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 public are examined. Topics addressed include message formation, media selection and audience differentiation. The impact of the Internet on public relations practices will be explored in depth. (Must be taken within the first six credit hours)

TLMN 602 Telecommunications Industry: Structure & Environment

Major technological, legal, and regulatory developments (national and international) are studied as they have molded the structure of the current telecommunications industry. The course traces the progression of 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 610 Data Communication Systems

This course covers the technology underlying data-communications systems, such as transmission media, modulation and demodulation, multiplexing, packet switching, hardware, software, and network operations. Topics included are fiber optics, the Integrated Services Digital Network (ISDN), T-1 and T-3 multiplexers, the open systems interconnection (OSI) model, and integrated voice-data equipment. Methods for determining system requirements as well as approaches to system design are covered in light of current data-communications equipment, applications, and services and their future trends. Students must complete a telecommunications project. Prerequisites: Statistics and Calculus I, or equivalent.

TLMN 620 Local Area Networking Systems

This course examines the design, implementation, and management of computer networking systems. It examines the seven-layer Open Systems Interconnection (OSI) reference model. Networking methods for local area networking (LAN) such as Ether-net and Token Ring are studied along with enterprise network technologies such as Fiber Distributed Data Interface (FDDI). Also examined are local area networking devices such as repeaters, bridges, routers, hubs, and gateways. Traffic engineering techniques in networks are analyzed and evaluated. Various distributed computing architectures and emerging trends in the supporting technologies are central to course content. Topical discussions and case studies reinforce and synthesize new-found principles and provide the means for practical application of abstract concepts. Each session includes evaluation methodologies relevant to strategic and economic planning. Prerequisites: Statistics and Calculus I, or equivalent.

TLMN 625 Wide Area Networking Systems

This course discusses transmission and switching for wide area networks (WAN) including circuit switched networks, such as the Public Switched Telephone Network (PSTN), and packet networks, such as the Internet. Other topics include Common-Channel Interoffice Signaling (CCIS), Signaling System 7 (SS7), frame relay, and asynchronous transfer mode (ATM). Wireless mobile systems are covered including cellular and personal communication services (PCS). Audio and video compression techniques are examined. Also studied are Private Branch Exchanges (PBX) including computer-telephone integration (CTI). A review is made of current trends including voice over Internet Protocol (IP). Prerequisites: Statistics and Calculus I, or equivalent.

TLMN 636 Internet Technologies

This course examines both the technological base and applications of the Internet. The first part of the course studies Internet technology including packet networking, Transport Control Protocol/Internet Protocol (TCP/IP), and Internet security and authentication (for example, firewalls, encryption, virtual private networks), Internet 2 (a new research oriented Internet) and IPV.6 (advanced Internet protocol). The second part of the course addresses Internet applications and their evolving use for multimedia transmission (such as voice over the Internet), private and leased service IP networks, e-commerce, data warehousing, and data mining. Finally, policy issues such as universal service and access are examined.

TLMN 641 Network Management and Design

This course studies those techniques that network managers can utilize to maintain and improve the performance of a telecommunications network. A network management system is defined and explained, including a description of how software package programs can monitor real-time performance of a network to identify problems. The emphasis of the course is placed on the five tasks traditionally involved with network management (fault management, configuration management, performance management, security management, and accounting management). A review is made of examples of current specific network management products. Also covered is how the performance data gathered from the monitoring can be archived and used later as an input when decisions are made on changes in the network architecture. Additionally, network design is studied for the development of a new network architecture when only user requirements are known. Note: Students who have already completed TLMN 640 may take TLMN 641 as a technological specialization course.

TLMN 645 Wireless Telecommunication Systems

This course reviews wireless telecommunications systems from micro-cell to global infrastructures. Its purpose is to teach the technology, applications, and limitations of these systems, which have become an essential element of the world information infrastructure. Technology topics covered include cellular communication principles, coding, antenna and propagation effects, channel access schemes, traffic engineering, and wireless network design. The course places emphasis on terrestrial systems such as cellular, personal communication services (PCS), dispatch, wireless local-area networks (LANs), and wireless data systems. Also covered are the topic areas of market trends, regulations, and standards. Students assess the role of wireless systems in comparison with other telecommunications alternatives available to organizations. Prerequisites: Statistics and Calculus I, or equivalent.

TLMN 672 Network and Internet Security

Security concepts needed for the design, use, and implementation of secure voice and data communications networks, including the Internet, are introduced. The course provides an overview of networking technology and standards including an introduction to the Internet communications protocols. Specific security subjects addressed include firewalls, packet filtering, virtual private networks (VPNs), wireless network security, and operating system security. Prerequisite: CSMN 636, CSMN 655, or any TLMN Specialization Course

TLMN 690 Telecommunications Management Project Students demonstrate their ability to structure and complete a major project that identifies and resolves an important management or organizational issue. Students report the results of their efforts in written and oral form. The project may be developed in cooperation with students' current employers or with some organization of their choice, provided there is no conflict of interest. The project is conducted under the direction of an on-site supervisor in cooperation with a faculty advisor. Students have 2 semesters to complete the management project. Prerequisites: Completion of 27 credits of graduate coursework and TLMN 660.

TLMN 690M Management Project - 1 Credit Hour   No listing

TMAN 610 Economics and Financial Analysis This course critically examines the fundamental concepts of economics and financial analysis, with a special emphasis on technology based projects. Specific topics examined include: cost estimating; time value of money principles; present and future worth techniques; cash flows; rate of return; and benefit-cost analysis. It also focuses on complex situations and decisions technology managers commonly face in selecting the best alternatives. The tools and techniques used to analyze and solve complex economic situations typically confronted by the technology managers are investigated. Cases are used to illustrate the application of these tools and techniques to help make better decisions in both public and private sector organizations.

TMAN 611 Principles of Technology Management This course is an overview, introducing students to the key concepts in technology management and the role of technology managers in both private- and public-sector organizations. It provides an understanding of how organizational entities can be structured and managed to respond effectively to dynamic changes caused by technology and international competition. The key cycles in the development of technology are covered from a historical perspective, including their impacts on the economy, industrial sectors, and organizational strategy and survival. 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. Note: This course replaces TMAN 601.

TMAN 612 Financial Management for Technology Managers An in-depth overview of the financial and managerial accounting technology based organizations is presented. Students are introduced to a variety of financial analysis tools from simple balance sheets to activity-based costing. The principles of financial accounting that underlie the preparation of financial statements are examined. The basis of asset valuation and allocation in technology based organizations is discussed, including capital and technological assets, intellectual property, and other important intangibles. Topics include, cost of capital, cost management, product costing and pricing, capital budgeting, and financial controls for strategic purposes. Students learn and apply these concepts and techniques to achieve organizational goals in both public and private sector organizations.   Note: An accounting background is strongly recommended for this course or students should register for UCSP 620: Financial Accounting before registering for TMAN 612.

TMAN 613 Marketing Technology-Based Products and Services The methods and principles of marketing new technology-based products and services are introduced with a focus on innovative strategies for bringing them to market. The issues of competitive strategy, pricing, customer service, market differentiation, and new product launches are presented. The strategic role of marketing as an integrated part of the product development process and its role in the overall strategic planning of the firm is discussed. Qualitative and quantitative market research techniques, including sampling and data collection procedures, demand forecasting, and product research and test marketing are presented.

TMAN 614 Strategic Management of Technology & Innovation

This course provides students with the insight and discipline required to effectively manage technical organizations in an increasingly competitive, rapidly changing, global environment. The course provides a coherent process for the formulation, implementation, and assessment of business strategy, presents a historical framework for the birth, growth, maturation, and decline of business innovation, and finally challenges the students to probe and report their own findings and recommendations on contemporary businesses and industrial sectors. The strategic framework for this course integrates: a) Strategy setting, implementation, and assessment process; b) Historical analogies/cases of business innovation through maturation lifecycle; and c) Application of lessons learned in contemporary business cases in business, government, and non-profit organizations.

TMAN 621 Systems Analysis and Operations Research

This course introduces students to the fundamentals of systems analysis and operations research. The purpose is to provide an understanding of the systems view of a product, service, or process to include a generic representation of its elements and dynamics. The skills, tools, and methodologies needed to quantitatively analyze and optimize systems and to make decisions as technology managers are provided. State-of-the art analytical tools and quantitative methods, including computer-based solutions, are discussed. Topics covered include decision theory, linear programming, transportation problems, network analysis, game theory, reliability theory, cost estimating, and expert systems. Note: This course replaces ENGM 615 in the TMAN program only.

TMAN 622 Systems Development, Acquisition and Management

The concepts, processes, and techniques are introduced that are used in the management of programs (governmental or commercial) to develop, acquire, and implement complex systems. The course examines the life cycle phases of managing a complex system, from conception and preliminary design to detail design and development, production, acquisition, implementation, operation, and maintenance. Emphasis is placed on understanding the key skills and approach to managing the total life cycle of a technically based systems program. An overview is provided of the legal issues and constraints of the organizational environment influencing the acquisition and implementation of systems. The focus is on the formulation of a strategy that integrates factors such as system requirements, competition, rights-to-data, make-or-buy decisions, source selection, standardization, and warranties/guarantees. Objectives and key activities are provided for each milestone during the development of a program. Note: This course replaces TMAN 654.

TMAN 623 Systems Analysis and Design

Students are introduced to the principles and techniques of systems analysis and design methods with particular emphasis on information systems. The conceptual architecture of an information system, information systems framework and conceptual building blocks are introduced. The systems modeling, design and implementation, two major elements of information systems analysis, are discussed in the context of life-cycle phases. The concept and techniques of information systems models, such as data model, process model, and network model are discussed in depth. An appreciation of multi-disciplinary approach needed for systems analysis and management will be gained through an understanding of information systems project management techniques, tools, and skills required for a successful completion of an information systems analysis and design project.

TMAN 632 Organizational Performance Management Organizations of all types are facing increasing pressures to improve organizational effectiveness. Organizations that succeed will be those that anticipate change and develop strategies in advance. This puts a premium on certain performance capabilities such as adaptability, flexibility, responsiveness, decisiveness, speed, quality, value, and customer satisfaction. This course brings together the most successful strategies and approaches for achieving a high-performing organization. These strategies and approaches are based on the latest research findings as well as those used by "world-class" organizations. The course covers all the key elements that contribute to high performance and organizational effectiveness. Illustrations and examples of organizations, in both the public and private sectors, that have successfully applied these strategies and approaches are provided throughout the course. Note: This course replaces TMAN 665.

TMAN 633 Human Resource Issues in Technology-Based Orgs This course presents issues, theories, and procedures associated with the effective management of human resources in technology-based organizations. Emphasis is placed on the integration of human resource planning with corporate strategic planning. The purpose of the course is to help each student appreciate the value of effective management of people in a variety of organizational settings, and to provide the methods to do so. Topical issues include leadership requirements for managing innovative and creative people, structuring teams, management of conflict and change, communication techniques, feedback, and the processes involved in project management. A focus of the course is on group and team formation and group dynamics using applied exercises and case studies. The course also discusses career decisions within technical organizations, including the requirements for transition to management, dual career paths for scientific/technical personnel, performance incentives, and the manager's role in subordinate appraisal and development. Note: This course replaces TMAN 650.

TMAN 636 Knowledge Management This course presents a holistic and coherent view of knowledge management(KM) from multi disciplinary perspectives. The human and technological dimensions of knowledge management are examined. This course provides students with hands-on techniques and tools for managing knowledge at both public and private sector organizations.   The formulation and selection of the most competitive KM strategy and its integration with the organization's overall business strategy is explored in depth. The course highlights the tools used both to successfully implement the KM strategies and to measure their progress. The selection and deployment of the appropriate technological infrastructure to facilitate the KM initiative is investigated. Furthermore, students will explore how knowledge can effectively be managed in the fast moving technologically sensitive and knowledge intensive corporate environment of the 21st century.

TMAN 640 Project Management This course explores the theory and practice of how to manage projects. The fundamental elements of project management are stressed, including project planning, organizing, team building, and effective control mechanisms. The key management aspects and proven techniques that differentiate project management from other types of management are fully discussed. These topics include effective project management styles, critical factors for project success, organizational support systems that enhance projects, project authority, and ethics in project execution. Cost, schedule and technical planning, and control methods such as PERT, CPM, variance analysis, TPM, and risk analysis are stressed. Project management software is used for creating a typical project plan and tracking the project.

TMAN 661 Systems Development and

The purpose of this course is to provide a thorough understanding of the systems development life cycle as it applies to different technological systems such as information systems, biotech systems, E-Commerce systems, and organizational systems. These systems generally have multiple, interdependent subsystems, which interact in complex ways. The methods of system life cycle analysis and planning, systems management, systems development and strategic decision-making will constitute the major content of the course. Students will demonstrate their mastery of the course material by developing systems development and management strategies in response to a series of real-world case study scenarios.

TMAN 671 Seminar in Technology and Innovation Management

This is the capstone course for the Technology Management program. The objective is to provide students with an integrative exercise that draws upon the fundamental materials and skills developed in the core courses. Students work in teams to develop a comprehensive business plan for a new venture, (that is, a new product or service). The start-up concept is developed through the stages of initial screening, market assessment, business analysis (preliminary and final plan), product development, testing, production, and market launch. The techniques of market research and planning, competitive analysis, return on investment, financing and budgeting, marketing, staffing and organizational design, quality management, and project planning are emphasized in the development of the new venture. Prerequisites: Completion of 27 semester hours of graduate coursework. Note: This course replaces TMAN 670.

TMAN 690 Technology Management

Students demonstrate their ability to structure and complete a major project that identifies and resolves an important management or organizational issue. Students report the results of their efforts in written and oral form. The project may be developed in cooperation with the student's current employers or with some organization of their choice, provided there is no conflict of interest. The project is conducted under the direction of an on-site supervisor in cooperation with a faculty advisor. Students have two semesters to complete the management project. Students register for TMAN 690 the first semester and TMAN 690M the second semester. Prerequisites: Completion of 30 semester hours of graduate coursework and TMAN 671.

TMAN 690M Management Project   No listing

UCSP 600 Graduate Writing Workshop

The Graduate Writing Workshop is designed to help ensure that students have the level of writing and critical thinking skills needed to successfully pursue a Graduate School degree or certificate program. Through a combination of weekly readings, interactive participation, editing, and writing assignments, students learn how to create an effective graduate-level research essay. Workshop topics include how to identify a thesis topic, avoid logical fallacies, present and defend an argument, critically assess ideas using a set of valid criteria, select and integrate references to scholarly literature, employ relevant examples to illustrate key points, use citations appropriately to avoid plagiarism, and comply with APA guidelines. Note: This course is not intended to be an English as a Second Language (ESL) course. Typically, ESL students requires specialized assistance. ESL students may benefit more from enrolling in an English or a Communications course designed specifically to address ESL issues. ESL courses are widely available at most community or junior colleges.

UCSP 610 Library Skills for the Information Age
This course is designed to familiarize students with electronic library and information resources. The significant changes in how information is delivered and the advent of the World Wide Web make information retrieval and research an exciting challenge. This course provides an in-depth introduction to the library research process and the tools necessary to be effective in the Graduate School of Management & Technology. Students learn to efficiently and effectively use a variety of electronic retrieval systems including VICTORIES (the online catalog of the University System), the Web, LEXIS/NEVIS, and Dialog. Note: This course is required for all new graduate students as of fall 1998 and all inactive students who reapply for admission. It must be completed within the first 6 credits of graduate study. This online course is a self-paced tutorial and can be completed on the student's own schedule anytime before its end date (it is not a 15 week class). It consists of seven modules with exercises and quizzes. The purpose of the course is to alert students to the many resources, databases, and research opportunities which are now available online to the student of management. The Graduate School and the Information and Library Services office are proud to offer this material, which is critical for 21st century managers.

UCSP 620 Financial Accounting
Financial accounting is an information system built upon a set of fundamental concepts. Its primary purpose is to help both current and potential investors value a company's debt and equity securities, that is, its bonds and common stock. This course is designed for people with no prior coursework in financial accounting. It encompasses basic financial concepts and their use in analyzing financial statements. Students analyze financial statements of actual companies and explore the process by which accounting principles are developed. Students develop a fundamental appreciation for how financial accounting information can be used to evaluate the economic performance of companies. Note: Students without a background in accounting and finance are strongly advised to complete this course before enrolling in ADMN 630 or ADMN 631.

UCSP 621 Economics
This course covers 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. Note: Students without a background in accounting and finance are strongly advised to complete this course before enrolling in ADMN 630 or ADMN 631.

UCSP 630 Introduction to Research Methods
This course presents basic research techniques and methodologies used in organizational research and evaluation studies. The information from these studies is used in making business decisions. Emphasis is also placed on preparing the student to evaluate and use research-based information developed by other individuals. The focus of the course is on applying basic research techniques to assess the performance of individuals, work groups, and organizations. Areas of coverage 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. UCSP 630 provides students with basic approaches and beginning skills necessary to evaluate research materials and their use in decision making. Note: Students without a background in statistics are strongly advised to complete this course before enrolling in ADMN 638.

XCIO 693 CIO Processes
First, models and simulations applicable to the information technology field are examined to identify the appropriate application of models and simulations to various strategic and operational situations. There will be an in-depth examination of model and simulation input and output to identify the optimal use of the various tools. Second, there will be an examination of the myriad of laws and regulations concerning the CIO environment. This will include a review of the Information Technology Management Reform Act (ITMRA), the Government Performance Results Act (GPRA), the Federal Acquisition Streamlining Act (FASA), and other laws and regulations derived from the aforementioned legislation. The application and implementation of the elements of the various laws and regulations will reviewed. An end-of-seminar project will be developed and presented. The focus of the project will be on the application of material studied during the seminar.

XMBA 601 Mgmt Theory, Strategic Thinking & Global Mgmt No listing

XMBA 603 Mkt, Entrepreneurship, & New Product Development
This seminar focuses on business development strategies from the perspective of customer needs and preferences. It introduces market research approaches, product and service design processes and life cycles, and sources of venture capital. Through workshops, team projects, and case studies, participants will develop effective marketing programs that recognize the increasing importance of electronic commerce as a distribution channel.

XMBA 605 Financial Systems and Management Accounting
This seminar focuses on 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 (EVA?), 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 will analyze the changing global economy, including the evolution of financial markets in response to rapidly expanding worldwide investment opportunities.

XMBA 607 Strategy and Sponsored Project
In this seminar, participants are teamed with sponsoring organizations to develop a strategic action plan that integrates management techniques and methodologies covered in the previous seminars. Through their focus on strategic models, strategy formulation and implementation, organizational assessment, and the creation of business plans, participants deepen their 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.

XMIT 601 IT and the Industry and Strategic No listing

XMIT 694 Info Technology Implementation & Operations
Along with planning, IT managers implement and, on a daily basis, manage system operations. This seminar examines implementation and operational issues and ideas. First explored are important implementation issues such as information risk assessment and security, information acquisition, and systems integration. Then the focus shifts to systems management and control. Program participants review current issues and trends in the IT industry, consider the concepts and best practices related to change management, and investigate the area of technological forecasting.

XTMN 601 Technology Overview and Strategic Management This first seminar provides program participants with the knowledge, skills, and techniques they need to develop and continuously evaluate appropriate business technology strategies for their organizations. This seminar starts with an overview of technology management as an academic discipline and a professional practice. This is followed by an introduction to strategic planning as an integrated part of a new technology-based product or service. The issues of competitive strategy, technology based organizations, and new product launches are presented. The processes of entrepreneurship and entrepreneurship are discussed from the standpoint of various organizational functions and levels and how these processes can be promoted through effective strategic management. Finally, using the principles and technology explored in Seminars 1 and 2, program participants will create a business plan for a new venture introducing a new technology-based product or service.

XTMN 605 Operations Performance and Human Resources This seminar focuses on operational tools, techniques and methodologies to improve operational effectiveness and gain competitive advantage. Program participants learn operations methods and skills that are used for planning, control, and interim management. The needs of both internal and external customers are addressed using consistently high and continuously improving quality products and services. Methodologies to implement both functional and non-functional processes are discussed. Organizational culture, business ethics, and effective management strategies are introduced to foster an understanding of workplace behavior and motivation in technology-based organizations. Software for implementing process improvements and process management is introduced, and program participants develop competencies in applying this software to practical problems including their team-based technology business ventures. Program participants will submit the third installment of their journals identifying the relevance of the content of Seminar 5 to the venture created at the conclusion of Seminar 2.