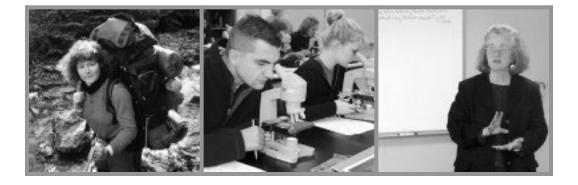
# Credit Courses

- Accounting
- Office Administration
- Anthropology
- Art
- American Sign Language
- Biology
- Business
- Chemistry
- Computer Information Systems
- Cooperative Education
- Criminal Justice
- Dance
- Economics
- Education
- Emergency Medical Services
- Engineering
- English
- English for Speakers of Other Languages
- Fire Science Technology
- Folklore
- French
- Geography
- Geology
- Healing Arts
- Health Fitness and Wellness

- History
- Honors
- Human Development
- Human Ecology
- Human Services
- Humanities
- Latin
- Leisure Education
- Massage Therapy
- Mathematics
- Music
- Applied Music
- Nursing
- Occupational Technology
- Outdoor Leadership
- Philosophy
- Physics
- Political Science
- Psychology
- Science
- Sociology
- Spanish
- Speech Communication
- Theater
- Women's Studiesa



#### Credit Courses

This section contains descriptions of the College's approved credit courses. Developmental courses use numbers 050-100; introductory level and first-year courses use numbers 101-199; intermediate level and advanced level courses use numbers 200-299.

\* A course with an asterisk meets the University of Massachusetts social and cultural diversity requirement. Students who transfer to the University without completing the Commonwealth Transfer Compact will have to complete one course that focuses on diversity in the United States and one course that focuses on global diversity.

The College does not offer all courses each semester. Students should refer to the Course Guide published in the spring, summer and fall for the specific courses offered during those semesters.

An explanation of the advising codes (A, B, C, D, E, H, L, N, S, X) can be found on the inside back cover:

### ACCOUNTING

### ACC 103 Analysis of Financial Statements (X) 3 cr

Interpretation and analysis of financial statements; cost allocation procedures, breakeven analysis, the budgeting process, preparation of flexible and rolling budgets. Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

# ACC 121 Principles of Financial Accounting I (X) 4 cr

An introduction to accounting principles, concepts, and techniques. Students create and maintain the manual accounting records, and prepare financial statements for a sole proprietorship. Other topics covered are internal control structure, short-term assets, and liabilities.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

### ACC 122 Principles of Financial Accounting II (X) 4 cr

A continuation of ACC 121 which is an introduction to accounting principles, concepts, and techniques. Students use accounting software to form partnerships and corporations. Other topics include long-term assets and liabilities, cash flow statements, and financial statement analysis. *Prereq: ACC 121* 

#### ACC 131 Applications of Cost Accounting (X) 3 cr

An introduction to accounting for manufacturing and service organizations. The course focuses on the specialized record keeping for job cost systems and the preparation of the related financial statements. Other topics include process-costing systems, cost behavior, breakeven analysis, and budgeting. The student uses spreadsheet software.

Prereq: ACC 122; CIS 140 or permission of instructor

### ACC 151 Concepts of Financial Accounting I (X) 3 cr

Provides students with a conceptual understanding of how accounting events impact on the elements of a business entity's financial statements for the current and/or future periods. Students will read and interpret annual reports of public corporations.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

### ACC 152 Concepts of Financial Accounting II (X) 3 cr

A continuation of ACC 151 which provides students with a conceptual understanding of how accounting events impact on the elements of a business entity's financial statements for the current and/or future periods. The course includes a research paper. Prereg: ACC 151

### ACC 203 Management Accounting (X) 3 cr

An introduction to the process of gathering and analyzing accounting data for use by managers in planning, decision-making, and controlling. Topics include basic cost concepts, cost-volume-profit relationships, relevant cost decisions, capital investment decisions, performance evaluation, and budgeting. The student uses spreadsheet software.

Prereq: ACC 152 or ACC 122; CIS 140 or permission of instructor

### ACC 207 Financial Accounting Systems and Procedures (X) 3 cr

Designed as a final course in Financial Accounting for Accounting Associate majors. Emphasis is on internal control concepts and techniques as they apply to small and medium sized financial accounting systems. Topics covered include: an overview of flowcharting and basic internal controls in an accounting system, creation and indexing of work papers, complexities of bank reconciliations, using work sheets as a general ledger, conversion of a trial balance from a cash basis to the accrual basis, depreciation schedules and controls, an

overview of payroll accounting systems, and the completion of tax forms. Completion of two practice sets required. Prerea: ACC 112 or ACC 122

### OFFICE ADMINISTRATION

# ADM 106 Keyboarding for Information Processing (X) 1 cr

Introduction to basic keyboarding skill by touch. Using proper technique students learn to input specifically designed alphabetic information quickly and accurately. Additional topics include the basic vocabulary and concepts used in keyboarding operations. Laboratory suggested. Course is graded on a Credit/No Credit basis. *Prerea: None* 

#### ADM 122 Introduction to Medical Terminology (X) 3 cr

Introduction to medical terminology including prefixes, suffixes, and medical abbreviations. Course will emphasize terminology familiarization for entry level office careers. Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

### **ANTHROPOLOGY**

### \*ANT 102 Introduction to Archaeology (BC) 3 cr

An introduction to prehistory, the bulk of the human past, emphasizing what archaeologists really do and how they do it. Surveys current methods and theories, the major findings of Old and New World archaeology, and the present worldwide crisis surrounding the loss of sites and information. Field trips in the northern New England area required, and some laboratory work follows these trips. Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

#### ANT 103 Introduction to Physical Anthropology (BC) 3 cr

The human species' place in nature from an evolutionary and ecological perspective; the interaction between biology, culture, and environment in shaping human evolution and human adaptive patterns; the significance of racial classifications and modern theories of variation

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

#### \*ANT 104 Cultural Anthropology: Tribes, States and the Global System (BC) 3 cr

An introduction to basic concepts of cultural anthropology. Students compare cultures of increasing scale and investigate specific universal issues related to why cultures change, who benefits from such change, and the costs of such changes. The course begins with an introduction to anthropological fieldwork, and continues with the description and analysis of different cultures representing domestic-scale autonomous tribal societies; politically organized, class-based systems and ancient empires; and global, industrial market-based civilizations.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

# ANT 204 Discovering Culture: Adventures in the Field (BC)

A hands-on approach to the study of culture through ethnographic fieldwork. The course covers reading and analysis of selected ethnographies with emphasis on learning about anthropology by going "into the field" and doing original work. Learning tasks focus on applied understanding of the culture concept by using various fieldwork methods, adapting to the field setting (selecting a cultural scene and making contact with informants), doing fieldwork (gathering and recording cultural data), and describing a cultural (analyzing the data and writing a cultural description).

Prereg: ANT 104 and ENG 112, 114, or 116

### ART

#### \*ART 103 Art History I (HC) 3 cr

The vocabulary of art introduced through the study of contemporary art forms. Art of prehistory through the Gothic period is studied in traditional chronology. Emphasis on visual awareness of formal elements, aesthetics, and components of style; causal factors of change; and the role of the artist.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

#### ART 104 Art History II (HC) 3 cr

History of Western art from Renaissance to contemporary art, introduced by a review of the elements of style in Gothic architecture. Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090; Recomm: ART 103

### ART 107 History of Modern Art (HC) 3 cr

A survey of modern visual art from Post-Impressionism to the present. Although the emphasis is on the art of painting, major expressions in sculpture and architecture are also studied. Field trips are required. Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

### ART 108 History of Photography (HC) 3 cr

An introduction to the history of photography from pre-photographic times to its most recent developments. This course presents an overview of major photographers and trends, technological developments, and stylistic analysis. Students examine the social and cultural contexts in which photographs are made, as well as critical approaches to photography and the relationship of photography to other art forms.

Prereg: ENG 101, 103, or 105

### ART 121 Two-Dimensional Design (HL) 3 cr

Introduction to the visual vocabulary through an investigation of two-dimensional order. Emphasis on the development of visual awareness, craftsmanship, and use of media and materials.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

### ART 125 Three-Dimensional Design (HL) 3 cr

An exploration of three-dimensional space. The students apply design principles in relation to height, width, and depth. The course emphasizes conceptualization and problem-solving.

Prereg: ART 121; Recomm: ART 131

#### ART 131 Drawing I (HL) 3 cr

A series of problems designed to acquaint the student with perceptual and inventive skills in drawing. Introduction to drawing materials and techniques while examining ways of implying space on a two-dimensional surface. Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

#### ART 132 Drawing II (HL) 3 cr

A continuation of Drawing I with emphasis on perceptual and inventive skills. Prereq: ART 131

#### ART 141 Color (HL) 3 cr

An exploration of the perceptual characteristics of color. Students will develop sensitivity to color through direct visual experiences and practice. Emphasis is given to color mixing and interaction in application. Prereq: ART 121 and ART 131; or permission of instructor

### ART 151 Introduction to Photography (HL) 3 cr

Introduction to basic camera operation, processing, and printing. Students must provide their own cameras, film, and paper. Processing and darkroom equipment furnished.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

#### ART 155 Introduction to Video (HL) 3 cr

An introduction to video as a visual medium with an emphasis on the development of basic conceptual, critical, and technical skills.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

#### ART 157 Animation (HL) 3 cr

An introduction to creating two-dimensional animation for multimedia, the World Wide Web, and as an art form unto itself. Using computer software, students learn basic principles and concepts for developing animated works and combining sound with animation.

Prereq: ART 161 or concurrent with ART 161; Recomm: ART 121, ART 141, ART 155

# ART 161 Introduction to the Electronic Studio (HL) 3 cr

An introduction to the visual, critical, and technical skills used in creating and manipulating images via computers and electronic imaging software.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090; Recomm: ART 121

#### ART 173 Digital Design (X) 3 cr

An exploration of the tools and processes of digital design. The course emphasizes development of strong visual and technical skills in digital design, layout, and illustration. Prereq: ART 121 and ART 161

# ART 225 Three-Dimensional Design II (HL) 3 cr

A continuation of ART 125, Three-Dimensional Design with emphasis on three-dimensional form in relation to site and space. Students use various materials, technologies, and design processes, and explore concepts through the process of drawing.

Prereq: ART 125 and ART 132

#### ART 232 Thematic Drawing (HL) 3 cr

Structure, organization, approach, problemsolving, and expressive concerns in drawing. The course emphasizes thematic development in drawing.

Prereq: ART 132, ART 141, and ART 235 or ART 238

### ART 235 Figure Drawing I: Anatomy and Structure (HL) 3 cr

An introduction to figure drawing with emphasis on the skeletal and muscular anatomy and the structure of the human form. Prereq: ART 121 and ART 132, or permission of the instructor

#### ART 236 Figure Drawing II-A (HL) 3 cr

Focuses on drawing from the model with emphasis on gesture, proportion, foreshortening, and composition.

Prereq: ART 132 and ART 235

#### ART 237 Figure Drawing II-B (HL) 3 cr

A continuation of ART 236, Figure Drawing II-A, with emphasis on the development of a cohesive body of work.

Prereq: ART 236

#### ART 238 Perspective Drawing (HL) 3 cr

Introduces principles of perspective drawing. The course emphasizes diminution, foreshortening, and convergence. Students explore drawing problems involving determining height, width and depth, and the study of light and shadow in the spatial field. *Prereg: ART 131* 

#### ART 241 Painting I (HL) 3 cr

An introduction to oil painting, composition, and construction. Emphasis on the properties of the materials and the approaches to representational and non-representational forms.

Prereg: ART 132 and ART 141

#### ART 242 Painting II-A (HL) 3 cr

A continuation of the disciplines of painting. Expression through exploration of the various problems of painting. Students work from the model and a variety of sources.

Prereg: ART 241

#### ART 243 Painting II-B (HL) 3 cr

A continuation of ART 242, Painting II-A, with emphasis on the integration and development of paintings surrounding a basic idea or theme. *Prereq: ART 242* 

#### ART 251 Photography I-A (HL) 3 cr

Emphasis on the quality and range possibilities in photography. Students explore their interests through project orientation. Issues and methodologies that concern the contemporary photographer are discussed in relation to the projects chosen. Prereq: ART 151

#### ART 252 Photography I-B (HL) 3 cr

Continuation of Photography IA. Emphasis on the quality and range of possibilities in photography. Students continue to explore their interests through project orientation. Issues and methodologies that concern the contemporary photographer discussed in relation to the projects chosen. Prereq: ART 251

#### ART 255 Video I-A (HL) 3 cr

An exploration of video as a visual medium using various electronic image-making techniques.

Prereg: ART 155

#### ART 256 Video I-B (HL) 3 cr

A continuation of Video I-A with an emphasis on the development of individual expression. *Prereg: ART 255* 

#### ART 261 Electronic Imaging (HL) 3 cr

An exploration of the language and processes of digital photography. The course covers scanning, manipulation, and printing of photographic images using the computer and related resources. Students explore their interests through a project orientation. *Prereq: ART 161 and ART 251* 

### ART 263 Designing for the World Wide Web (HL) 3 cr

An introduction to the tools, methods, and philosophies of designing and creating interactive pages for the World Wide Web. *Prereq: ART 161; Recomm: ART 121, ART 141, ART 157, ART 265* 

### ART 264 Dynamic Web Page Design (HL) 3 cr

An introduction to the methods and philosophies of designing and creating dynamic interactive pages for the World Wide Web using Flash and DHTML.

Prereq: ART 263; Recomm: ART 157 and ART 265

#### ART 265 Multimedia Design I (HL) 3 cr

An introduction to the design principles, processes, and tools of multimedia for creating interactive artworks. The course focuses on the development of fundamental skills necessary for creative use of multimedia authoring software.

Prereq: ART 161; Recomm: ART 121, ART 141, ART 151, ART 157

#### ART 266 Multimedia Design II (HL) 3 cr

A continuation of ART 265, Multimedia Design I, aimed at further developing a student's ability to create cohesive interactive multimedia projects. The course emphasizes the development of individual expression through various tools of multimedia design.

Prereq: ART 157 and ART 265; Recomm: ART 121, ART 141, ART 151

### ART 267 Three-Dimensional Modeling and Animation (HL) 3 cr

An introduction to the concepts and techniques of computer-based three-dimensional modeling and animation. Students use professional level 3D software to learn how to create complex forms and animations built up from simple shapes.

Prereg: ART 157; or ART 161 and ART 155

# ART 271 Graphic Design I: Typography (X) 3 cr

An exploration of typographic elements and their application to various forms of visual communication. Building on established visual principles, students investigate problems in typographical structure, sequence, and communication effectiveness.

Prereq: ART 121, ART 131, and ART 173

### ART 272 Graphic Design II: Problems in Design (X) 3 cr

Explores problems in graphic design requiring practical solutions with visual integrity. Students integrate text, image, and color utilizing traditional and computer processes.

Prereg: ART 271

#### ART 290 Media Arts Seminar (HL) 3 cr

Designed for students nearing completion of their course work in the Media Arts programs. Working independently, each student produces a thematic body of work suitable for inclusion in a transfer or employment portfolio, or for exhibition purposes. Students work outside of class; students and faculty use regular class meetings for critical discussion and review of work

Prereq: Completion of a minimum of three 200-level art studio courses, or permission of the instructor.

#### ART 291 Fine Arts Seminar (HL) 3 cr

Designed for students nearing completion of their course work in the Fine Arts programs. Working independently, each student produces a thematic body of work suitable for inclusion in a transfer or employment portfolio, or for exhibition purposes. Students work outside of class; students and faculty use regular class meetings for critical discussion and review of work

Prereq: Completion of a minimum of three 200-level art studio courses, or permission of the instructor.

### AMERICAN SIGN LANGUAGE

#### ASL 101 Elementary American Sign Language I (HC) 4 cr

Presents basic grammatical rules in the use of American Sign Language. The course covers basic ASL vocabulary, manual alphabet/numbers, visual-gestural communication, and information related to deaf culture. Students develop basic competence in receptive and expressive use of ASL. Students and teacher use ASL in the class to communicate. Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090.

#### ASL 102 Elementary American Sign Language II (HC) 4 cr

A continuation of ASL 101, designed to further develop students' proficiency in frequently used signs. The course offers students the opportunity for individual handson experience in language learning. The course emphasizes a study of cultural behaviors, values, and norms. The course uses video text to improve conversational skills and preserve the integrity of the language. Students and teacher use ASL in the class to communicate. Prereq: ASL 101 or equivalent, or permission of instructor

### ASL 201 Intermediate American Sign Language I (HC) 4 cr

Offers the student continuing opportunities for hands-on experience in language learning. A critical component of the course is the use of video text to improve conversational skills at the intermediate level and to preserve the integrity of the language. The course emphasizes a deeper understanding of Deaf norms, allowing students to learn appropriate behavior in order to function comfortably in a wide variety of situations in the Deaf community.

Prereq: ASL 101 and 102, or permission of instructor

### **BIOLOGY**

#### BIO 101 Zoology (NC) 4 cr

An exploration of major groups of animals through studying how representative species carry on life sustaining functions such as reproduction, feeding, waste removal, response to stimuli, and respiration. Students study the classification of animals and how they relate to their environment. In the laboratory, students study the structure and behavior of preserved and live animals from each of the major groups.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

#### BIO 102 Botany (NC) 4 cr

An introduction to the study of plants through exploring the structure and function of roots, stems, leaves, flowers, fruits, and seeds. Students study the processes of reproduction, respiration, photosynthesis, and inheritance. In the laboratory, students study the structure and function of live and preserved plant materials as they relate to lecture subjects. Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

### BIO 103 Ecology (NC) 4 cr

Environmental studies with emphasis on concepts of ecology, conservation of natural resources and their relationship to the quality of life. Lab sessions focus on forest, field, stream, and pond habitats, with field trips to local sites.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

#### BIO 104 Natural History (NC) 4 cr

Environmental studies with emphasis on natural history, climate, life zones, and conservation of natural resources. Lab required.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

#### BIO 108 Human Systems (NL) 3 cr

Presents a comprehensive examination of human anatomy and physiology with particular emphasis on the cardiovascular and respiratory systems. It highlights the anatomy and physiology of the central nervous system, as well as the autonomic and somatic peripheral nervous systems. This course surveys other body systems, including topics in geriatrics and infection control. The course satisfies course requirement for PMC Advanced Life Support students. It does not satisfy course requirement for LPN, ADN, and MTC students. PMC students must receive a

minimum final grade of "C" in this course to maintain eligibility in the Paramedic Certificate Program

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

#### BIO 117 Comprehensive Anatomy and Physiology I (NC) 4 cr

The study of human anatomy and physiology with emphasis on anatomy. Students study the anatomy of the nine organ systems using the structure to underscore the function of body parts and their relationship to each other. Lab required. BIO 117 and BIO 118 may be taken as "stand-alone" courses since they both cover the entire body. Credit can be granted for either the BIO 117/118 series or the BIO 195/196 series. Our faculty advise LPN, MTC, Pharmacy Technician students to take BIO 117, and RN, PTA students to take BIO 195/196. Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

#### BIO 118 Comprehensive Anatomy and Physiology II (NC) 4 cr

The study of anatomy and physiology of the human body with emphasis on physiology. Key concepts lead to a basic understanding of the physiological functions of the human body. Students study the interrelationships of functional systems of the body and how they contribute to the maintenance of homeostasis. Lab required. Credit can be granted for either the BIO 117/118 series or the BIO 195/196 series. Our faculty advise RN and PTA students to take BIO 195/196. Prereq: High school chemistry or CHE 105 within the past five years.

### BIO 120 Introduction to Environmental Science (NC) 4 cr

Provides an overview of the principles of environmental sciences with the overall objective of increasing student awareness and understanding of regional, national, and global environmental issues. Students focus on environmental problems, ecological principles, human population, natural resources, environmental quality, pollution, biodiversity, and conservation.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

#### BIO 122 Freshwater Ecology (NC) 4 cr

Provides an overview of the ecology of freshwater habitats and freshwater organisms. The course emphasizes the study of wetlands (marshes, bogs, swamps and vernal ponds), streams, rivers, ponds, lakes and the biological communities (including plants, insects, fish, reptiles and amphibians) that they support. Students utilize fish-stocked recirculating tanks to conduct experiments and study the science of aquaculture (aquatic plant and animal farming). Students study the composition and conditions of freshwater habitats and go on field trips to different freshwater sites. Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

### BIO 124 Introductory Horticulture (NC) 4 cr

Provides knowledge on how to propagate and care for plants through experiences with soils, seeds, bulbs, potting, watering, pruning, dividing, terrariums, and fertilizers. Students learn how to design and manage a vegetable garden for maximum harvest. The laboratory sessions provide experiences with plants, such as mixing soil, planting seeds, taking cuttings, potting up plants, fertilizing plants, plant growth, constructing terrariums, and a trip to a local plant growing business. Credit can be granted for BIO I I or BIO 124, but not for both.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

#### BIO 126 Biology I (NC) 4 cr

An introduction to the basic mechanisms of life. Major topics include the biochemical basis of life, cell structure, DNA structure and replication, protein synthesis, mitosis, meiosis, inheritance, respiration, photosynthesis, and biotechnology. Students use the scientific method in laboratory experiences that include selected topics in cell structure, cell functions, mitosis and meiosis, genetics, enzymes, respiration, photosynthesis, developmental biology, and microbiology. Credit can be granted for BIO 119 or BIO 126, but not both.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090 and MAT 090

#### BIO 129 Pathology (NL) 3 cr

Surveys illnesses and injuries commonly found in clients seeking massage therapy.

Prereq: BIO 101 or BIO 105 or BIO 117 or BIO 119 or BIO 195

#### BIO 130 Human Nutrition (NL) 3 cr

The study of nutrition and its application to good health and a sense of well being. Applications of nutrition to physical fitness, preventive medicine, and health care. Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

#### BIO 195 Human Anatomy and Physiology I (NC) 4 cr

A first semester of a comprehensive study of the anatomy and physiology of the human body, including biochemistry, cell anatomy and physiology, histology, the skeletal system, articulations, muscle anatomy and physiology, neurophysiology, the anatomy of the central and peripheral nervous systems, the anatomy and physiology of the special senses, and neural integration. Laboratory with animal tissue dissections is required. Credit can be granted for only one of the following courses: BIO 105, BIO 107, BIO 117, BIO 195. Prereq: High school chemistry or CHE 105 within the past five years; placement beyond or satisfactory completion of COL 090 and ENG 090

#### BIO 196 Human Anatomy and Physiology II (NC) 4 cr

A second semester of a comprehensive study of the anatomy and physiology of the human body, including endocrinology, blood, cardiovascular anatomy and physiology, lymphatic system, immunity, respiratory anatomy and physiology, metabolism, urinary anatomy and physiology, fluid dynamics, reproductive anatomy and physiology, genetics, and development. Laboratory required. Credit can be granted for only one of the two courses: BIO 106, BIO 196.

Prereq: BIO 195 or permission of instructor

#### BIO 205 Microbiology (NC) 4 cr

An introduction to the biology of microorganisms with emphasis on the properties of micro-organisms and their relation to disease. Lab required. Prereg: BIO 101 or BIO 105 or BIO 107 or BIO

Prereq: BIO 101 or BIO 105 or BIO 107 or BIC 117 or BIO 195

### BIO 207 Human Pathophysiology (NL) 3 cr

An introduction to the physiology of adult disease processes. Students study pathogenesis, clinical manifestations, diagnostic assessment and the rationale for therapeutic regimens. This course places emphasis on common disorders of the cardiovascular, respiratory, endocrine, gastrointestinal and

reproductive systems abnormalities. This course is primarily for primary care practitioners in the health care fields. Prereq: BIO 117, BIO 118, or BIO 196, or permission of instructor

#### BIO 281 Interpretation of Diagnostic Laboratory Tests (NL) 3 cr

The study of current information on commonly ordered laboratory tests. Includes normal values, background, test explanation, and clinical information. This course is intended for practitioners and students in the health care areas.

Prereq: BIO 196

### **BUSINESS**

### BUS 103 Introduction to Marketing (A) 3 cr

The distribution of goods and services from producer to consumer. Structure of marketing institutions, price determination and policies; consumer and industrial marketing, market research; legislation affecting marketing. Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

### BUS 105 Mathematics for Business (X) 3 cr

Designed to meet the needs of business students. Aims to provide the mathematical background for success in the study of finance, accounting, and other business subjects. Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090; MAT 090 or placement by examination

#### BUS 107 Introduction to Federal Income Taxes (X) 3 cr

Designed to acquaint the student with the federal income tax system. Emphasis is on the basic concepts of income recognition, deductible business and non-business expenses, and special tax calculations. Identification of the tax issue and proper research techniques for solving tax problems also stressed.

Prereq: ACC 112 or ACC 122

#### BUS 108 Introduction to Income Tax Preparation (X) 1-3 cr

A practicum in income tax preparation. The course provides training in tax preparation procedures and prepares the student for the VITA (Volunteer Income Tax Assistance) course examination. Upon successful completion of the VITA exam, the student performs community service in cooperation with the Internal Revenue Service and the Massachusetts Department of Revenue by filling out federal and state income tax returns

for area residents. The students contract with the instructor to earn from one to three credits

Prereq: BUS 107

### BUS 109 Personal Finance (X) 3 cr

An introduction to the finances of the home. Topics include: auto loans and leasing, credit cards and fees, home mortgages—points, ARMs and fixed rates, health and life insurance, personal credit, bills, banking, and personal investing. Inexpensive PC-based home finance software will be used. *Prereq: None* 

### BUS III Introduction to Business (A) 3cr

Introduces students to management, marketing, and financial considerations of business. Establishes economic and historical perspectives, as well as daily operation of a business.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

### BUS 119 Principles of Real Estate (X)

Surveys the principles of real estate. Designed for those who want to know more about the field for personal knowledge or for possible employment. Of help to those who intend to take a state real estate examination. Includes the legal, financial, brokerage, marketing, and other important aspects of the real estate business.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

### BUS 123 Business Communication (X) 3 cr

Designed to familiarize students with the principles of effective communication. Emphasis on planning, organizing, and writing a variety of business letters. Oral communication and basic telephone techniques also covered. *Prereg: ENG 101, 103, or 105* 

### BUS 125 Principles of Advertising (X) 3 cr

An introduction to the field of advertising. Intended for those interested in the role of advertising in our business and economic structure. Emphasis on how a mass communication program should be developed. Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

#### BUS 155 Business Law I (A) 3 cr

An introduction to the law as it pertains to transactions in business and commercial fields. Laws of contracts, social forces, and legal rights, bailments, and personal property transactions. Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

#### \*BUS 163 Diversity Management: Understanding Multiculturalism (A) 3 cr

Focuses on multicultural organizational development, and demonstrates how many of us find ourselves ill-prepared to work or go to school in today's socially and culturally diverse society. An interdisciplinary approach (historical, sociological, and anthropological) used to understand cross-cultural differences. Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

### BUS 203 Human Resources Management (A) 3 cr

Provides a practical approach to the tasks of recruiting, hiring, training, and compensating employees. Students will also study equal opportunity, motivation, health and safety, and labor relations.

Prereg: BUS 111

### BUS 204 Managerial Communication (A) 3 cr

A study of the rhetoric of managerial communications. The student learns to improve his or her ability to communicate in such management situations as conflict resolution, negotiation, conducting meetings, making presentations, and working with teams using multiple genres—listening, written, oral, multimedia, and the Internet.

Prereq: ENG 101, 103, 105, CIS 140, or permission of instructor

### BUS 205 Principles of Management (A)

Fundamentals of the management of organizations. Introduces students to the process of management, including decision making and the role of the individual. Emphasis on the functions of management.

Prereq: BUS 111; Recomm: PSY 101

#### BUS 213 Personal Selling and Sales Techniques (X) 3 cr

Equips the student with a firm foundation for a sales career. Attention to general principles of selling and to building skills essential in the workplace. Emphasis on the selling cycles. *Prereq: BUS 103 or permission of instructor* 

#### BUS 214 Retail Management (X) 3 cr

A practical approach to managing a retailing organization, with an emphasis on current practices and trends. Students study selecting, purchasing, pricing, and selling policies for merchandise and services in stores and electronic retailing. The course stresses retail planning and decision making along with a focus on change and adaptation to change.

Using case studies, students learn about selecting, purchasing, pricing, and selling policies.

Prereq: BUS 103, BUS 111, or permission of instructor

#### BUS 223 Business Applications (L) 3 cr

An upper level ourse for business students. Students combine classroom instruction in a current business topic with practical involvement in a specific business enterprise or industry. While topics may change every semester, the course includes such activities as data collection, document analysis, topical research, stakeholder interviews, business planning, and strategy development. The course includes significant writing assignments and a major project.

Prereq: BUS 111; ÉCO 101 or ECO 102; completion of 24 college-level credits; MAT 107 concurrently or placement by examination

### **CHEMISTRY**

### CHE 105 Basic Principles of Chemistry (NC) 3 cr

A survey course for students interested in the basics of chemistry from a descriptive point of view. Includes matter, properties of families of compounds and their characteristic compounds, mixtures, acids and bases, chemical reactions, introductory biochemistry, environmental effect of chemistry. Could be the basis for coursework in selected technical areas, but not intended as a substitute for CHE 111, 112.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

### CHE III General Chemistry I (NC)

Theoretical and descriptive topics of chemistry, including nature of matter, atomic and molecular structure, periodic properties of the elements, chemical bonding, nomenclature, stoichiometry, gaseous, liquid, and solid states. Lab required.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090; MAT 096 concurrently or placement by examination

#### CHE II2 General Chemistry II (NC) 4 cr

Interrelated descriptive and theoretical topics of chemistry, including chemical kinetics, chemical equilibrium, acids and bases, solubility equilibria, free energy, entropy, equilibrium and free energy, electrochemistry, nuclear chemistry, environmental impact of chemistry. Some basic chemistry of metals and non-

metals, as well as some organic chemistry concepts are covered in this course. Lab required

Prereq: CHE 111; MAT 107 concurrently or placement by examination

#### CHE 201 Organic Chemistry I (NC) 4 cr

Introduction to the chemistry of carbon compounds. In-depth study of the structure, physical properties, and reactivity of alkanes, cycloalkanes, alkenes, alkynes, and conjugated unsaturated systems. Special topics integrated into the survey include conformational analysis, nucleophilic substitution, elimination reactions, electrophilic addition, and stereochemistry of chiral molecules. Lab required. *Prerea: CHE 112* 

#### CHE 202 Organic Chemistry II (NC) 4 cr

In-depth study of aromatic compounds, physical methods of structure determination, organic halides, organometallic compounds, alcohols, phenols, ethers, aldehydes, ketones, carboxylic acids, carboxylic acid derivatives, amines, and amides. Examination of various classes of natural products. Introduction to biochemistry. Polymers and polymerization. Lab required.

Prereg: CHE 201

### COMPUTER INFORMATION SYSTEMS

#### CIS 101 Computer Literacy (X) I cr

A general introductory level microcomputer course for novices. Students learn to use basic computer vocabulary and to create, save, and print a simple document. Also included is a preview to computer electronic mail and information retrieval. Graded credit/no credit. *Prereq: None* 

### CIS 110 Introduction to Computers (L) 3 cr

A non-technical survey course in computers-what they are, what they can do, what they cannot do, how to use them, and what impact they have on society. Ideal for someone looking for a single course in computer literacy. Not designed to prepare for a career in computing, although it provides a background for a select group of computer information systems (CIS) offerings. Introduction to data management, graphics, word processing, and spreadsheets with student use of commercial software. Writing

and running simple programs in the BASIC language also included. Students spend time, outside of class time, in the computer lab. Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090; MAT 095 or equivalent

### CIS III Introduction to the Internet (X) 3 cr

An introduction to the Internet and its components, the World Wide Web, Gopher, and Veronica. Topics include: networking, working with email, search strategies, web page construction, security and privacy issues, legal and social issues. Graded credit/no credit. *Prerea:* None

### CIS 115 Introduction to Business Information Systems (A) 3 cr

The application of computers to business and like organizations. Topics include: data processing systems, computer concepts, teleprocessing, business data base systems, distributed processing. Emphasis is on the use of microcomputers in business. Students complete hands-on exercises using current word processing, spreadsheet, and database software. Examines the role of management and the user in the development and operation of business computer systems. An appropriate beginning course for those contemplating careers in computing and business as well as those wishing to use the computer as a business tool. Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090; MAT 095 or equivalent

# CIS 121 Word Processing on Microcomputers (X) I cr

Using text editor programs, this course explores the facilities available on standard editor programs, along with giving the student a facility for using such programs in research paper writing, and other applications according to the needs and wishes of the students. Graded credit/no credit.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090; ADM 106 or permission of instructor

#### CIS 123 Database Applications (A) 1 cr

A non-technical view of data base management systems, with a survey of possible applications. Includes hands-on use of microcomputer data base management systems, with discussions of their relative effectiveness.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090; Recomm: CIS 110 or CIS 115

#### CIS 125 Internet Literacy (X) I cr

A basic overview of the Internet. Topics include: the World Wide Web and how to access it; configuration of a browser; use a browser to do research, transfer files, and send/receive mail. Graded credit/no credit. *Prereq: None* 

### CIS 140 Microcomputer Software Tools I (A) 3 cr

Provides students with an introduction to several major "productivity" programs used on microcomputers. Topics include the Windows operating system, word processing, electronic spreadsheet management and graph production using currently popular software packages, and some database management. This is a hands-on course.

Prereq: ADM 106 and placement beyond or satisfactory completion of COL 090, ENG 090 and MAT 090

# CIS 141 Microcomputer Software Tools II (A) 3 cr

Provides students with intermediate training in the use of word processing and electronic spreadsheet software. In addition to building upon software skills taught in CIS 140, Microcomputer Software Tools I, students learn the integration of data created in various programs and the development of presentation-quality output. Students use each application's macro language to automate and customize documents, worksheets, and data entry operations. Students are introduced to graphics software used for business and multimedia presentations. Prereq: CIS 140

# CIS 142 Introduction to Relational Database (X) 3 cr

Provides a foundation in business information management. The course includes extensive hands-on experience managing business information using a relational database on a microcomputer. Topics include the theory of managing data on a computer; creating a database; adding, editing, and saving records; methods for viewing, extracting, and updating records; methods for presenting data as forms, reports, or graphs; and techniques for controlling data entry accuracy and validity. Students will create and manage a variety of typical business databases during the course. Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090; ADM 106 or permission of instructor

### CIS 143 Advanced Word Processing (X) 3 cr

Provides students with advanced concepts in word processing. Topics include mailmerge, collaboration, advanced formatting and

pagination, advanced table manipulation, forms, and advanced paragraph formatting. Students also learn to utilize modern task management software. Topics include creating calendar entries with special features, use of task pads, use of mailing lists, and e-mail group and document management. Students learn correct formatting options for many commonly used business documents, including letters, reports, and brochures.

# CIS 145 Database Programming and Procedures (X) 3 cr

The student is introduced to database management and applications programming in a microcomputer database environment using Microsoft Access relational database. Students create, access, edit, update, and control a relational database using database tools and use the database inquiry tools Query by Example (QBE), SQL, and macro programming language. Database principles and concepts demonstrated and students apply them. Students gain hands-on experience using a current, Windows-based microcomputer database system. Topics include planning and designing a database, table normalization, creation and management of tables, forms, queries and reports, procedure automation using macros, changes to database and table design, and multi-user design considerations. Prereg: ADM 106, CIS 150

### CIS 150 Programming Principles and Concepts (L) 3 cr

Computer problem-solving principles and techniques for students contemplating a career in computer programming, or computer information systems. Structured problem-solving methods are introduced, including techniques for decomposing complex problems, and expressing the problem solutions in terms which can be expressed in any computer programming language. Prereq: MAT 096 or equivalent; ENG 101, 103, or 105 or concurrent enrollment

# CIS 151 HTML and Web Page Design (X) 3 cr

A study of HTML programming language and the creation of the effective web pages for use on the Internet. Topics include creating web pages with HTML and with web page construction tools, managing files, administering web sites, and managing commerce on the web. Students create inter-active web pages, and complete an extensive final project. *Prereq: CIS 140, or CIS 150, or permission of instructor.* 

### CIS 170 Introduction to Computer Maintenance (X) 3 cr

An in-depth coverage of microcomputer (PC) hardware design, operation, maintenance, troubleshooting and repair. The course provides thorough coverage of and hands-on experience with Intel-based microcomputers; the interaction between software and hardware in managing resources and controlling operation; components of the motherboard; optimization of the motherboard; support for I/O devices; and hard drive operations. Topics also include troubleshooting techniques which are useful to diagnose and correct a wide variety of PC problems. This is a hands-on course and requires extensive lab work. Prereg: CIS 115, or CIS 140, or permission of instructor

#### CIS 180 Network Workstation Administration (X) 3 cr

Provides a basic working knowledge of installing, setting up, and administering workstations using a current operating system. Topics include installing and configuring workstations to operate on a variety of network topologies. Other topics include configuring protocols, security, sharing of resources, and allowing access to information. Students set up, debug, and troubleshoot actual workstation installations. Prereq: CIS 115, or CIS 140, or a CIS major

### CIS 181 Networking Principles and Techniques (L) 3 cr

An introduction to networking concepts, design essentials, media and hardware. Topics include coverage of the OSI and IEEE 802 models, network communications and protocols, network architectures, simple network operations, complex networks, network administration and support, enterprise and distributed networks, wide-area and large-scale networks, and network problem analysis and solution. Students complete hands-on lab experiences in the implementation of a variety of local area network designs and protocols. *Prereq: CIS 180* 

### CIS 245 Advanced Database Programming (L) 3 cr

A continuation of CIS 145, Database Programming Procedures. The student begins with advanced macro design, then is introduced to Access Basic (a 4GL version of Microsoft Visual Basic for Windows) in conjunction with built-in database tools. This is used by the student to create custom applications using the Microsoft Access relational database. Students complete a database term project.

#### CIS 250 Advanced Basic (L) 3 cr

A continuation of CIS 150, Programming Principles and Concepts. Students study additional command structures and coding techniques utilizing contemporary Basic software. The course emphasizes proper programming techniques and structure, and industrial practices. Teaching methodology includes lab activities, and problem solving, both individually and in small groups. Students complete extensive programming assignments. Prereq: CIS 150 and CIS 145, or permission of instructor

#### CIS 251 Java Programming (L) 3 cr

A study of computer programming using the Java language. The course emphasizes proper programming techniques and structure, and industrial practices. Teaching methodology includes lab activities, and problem solving, both individually and in small groups. Students complete extensive programming assignments. Prereq: CIS 150 or status as a second year engineering student

#### CIS 252 C++ Programming (A) 3 cr

A study of computer programming using the C++ language. The course emphasizes proper programming techniques and structure, and industrial practices. Teaching methodology includes lab activities and problem solving, both individually and in small groups. Students complete extensive programming assignments. Prereq: CIS 150 or status of a second year engineering student

#### CIS 253 Pascal Programming (A) 3 cr

Introduction to a structured computer programming language lending itself well to modern programming techniques. Student facility in programming is emphasized by direct interaction with the computer. A number of problems are assigned to be solved. Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090; MAT 096 or equivalent, or permission of instructor

### CIS 270 Advanced Computer Hardware Maintenance (X) 3 cr

A continuation of CIS 170, Introduction to Computer Maintenance. Hardware related topics include techniques for customizing a PC with internal and peripheral equipment; understanding and managing physical and virtual memory; and electricity and power supplies in PC's. Software related topics include configuring and troubleshooting the Windows operating systems; and hard disk drive management and use of troubleshooting programs. Students learn methods and techniques used by professional PC technicians to diagnose and repair systems. This is a handson course and requires extensive lab work. *Prereg: CIS 170* 

#### CIS 280 Network Server Administration (L) 3 cr

Provides instruction in the installation, configuration, and management of a local area network server using current industry server software. Topics include installation of software, configuration of software and common services, protection of data, client requirements and setup, setting up groups and users, managing and securing access to server files, remote access, and other topics. Students complete extensive hands-on lab activities and homework.

#### Prereq: CIS 180

#### CIS 283 Linux (L) 3 cr

Provides a basic working knowledge of the Linux operating system and an understanding of the Unix environment. Topics include installing Linux as a server, configuring Linux, managing users, the UNIX command line, file systems, security, Internet services (DNS, HTTP, SMTP, POP, SSH), and Intranet services (NFS, DHCP). Students set up, debug, and troubleshoot actual workstation installations. Prereq: CIS 180 or permission of Instructor

### CIS 285 Managing Network Information Resources (L) 3 cr

Provides instruction in the installation, configuration, and management of system-wide electronic messaging exchange software. Topics include understanding system architecture and messaging protocols, installation of system software, communication and information transfer, managing users, setting up and managing clients, messaging server management, intersite connectivity and mail systems, system security, and other maintenance and connectivity issues. *Prereq: CIS 280* 

### CIS 290 Systems Analysis and Design (X) 3 cr

An investigation and analysis of the methods and techniques used by the systems analyst in analyzing present systems, whether manual or automated systems. The systems development life cycle is followed, from feasibility study through implementation. A major portion of the course is a case study involving the design of a microcomputer-based system for inventory and accounts receivable for a small business.

#### Prereq: CIS 115 or CIS 150

### CIS 292 Cooperative Work Experience in CIS (X) I to 3 cr

Supervised employment in a local organization which employs a computer in performing some tasks, combined with a seminar coordinating the employment situation with educational experience.

Prereq: Accumulation of at least 9 credits in CIS courses

# COOPERATIVE EDUCATION

### COE 297 Seminar in Cooperative Education I (X) I cr

Provides an opportunity to share work related experiences with fellow students and faculty as well as résumé writing, job interview skills, locating and contacting prospective employers, networking and selecting references, cover letters, and job search strategies. For more information or an application, call or stop by the Office of Cooperative Education in room E116B.

Prereq: ENG 101, 103, or 105; must meet with CoOp Ed staff before registering

### COE 298 Seminar in Cooperative Education II (X) I cr

Covers the following topics: understanding organizational structure and organizational design, interpersonal relations and communication on the job, career advancement, managerial styles, maximizing promotional opportunities, developing performance objectives for your job, developing work adjustment skills, mediation skills, time management skills, evaluating your job performance, and making the transition to permanent employment. For more information or an application, call or stop by the Office of Cooperative Education in room E116B. Prereq: COE 297; must meet with CoOp Ed staff before registering

### COE 299 Seminar in Cooperative Education III (X) I cr

Provides an opportunity for students to discuss contemporary issues in the workplace; for example, classism, racism, ageism, legal issues, sexual harassment, and the "glass ceiling." In addition, students are required to participate as guest speakers, panelists, and mentors at the seminars being offered to first-and second-semester co-op students, thereby sharing their experiences, giving advice, and answering questions.

Prereq: COE 298; must meet with CoOp Ed staff before registering

### COE E97 Employment in Cooperative Education I (X) 2-4 cr

Offers students an opportunity to earn academic credit while working in a field related to their academic major. Students are employed full/part-time on/off campus in supervised work settings. The program emphasizes the educational, personal, and financial benefits of preprofessional work experience. Student evaluations are conducted by worksite supervisors, and students are visited on site by co-op faculty coordinators.

Prereq: ENG101, 103, or 105

### COE E98 Employment in Cooperative Education II (X) 2-4 cr

Provides students with the opportunity to extend the cooperative education experiential learning process. Students may opt to stay at their COE E97 worksite or transfer to a different workplace. In both cases, new learning objectives are developed in order to enhance the continued "hands on" learning experience. Student evaluations are conducted by worksite supervisors, and students are visited on site by co-op faculty coordinators.

Prereg: COE E97

### COE E99 Employment in Cooperative Education III (X) 2-4 cr

Provides a third semester of experiential learning for the co-op students. Students may opt to remain at the same worksite as COE E98 or explore the challenges of a new job site. In either case, new learning objectives are developed in order to maintain the challenge of a new practical learning experience. Student evaluations are conducted by worksite supervisors, and students are visited on site by co-op faculty coordinators.

Prereq: COE E98

### **CRIMINAL JUSTICE**

# CRJ 101 Introduction to Criminal Justice (A) 3 cr

Agencies and processes involved in the criminal justice system including the legislature, the police, the prosecutor, the public defender, the courts, and corrections. An analysis of the roles and problems of the criminal justice system in a democratic society with an emphasis upon inter-agency relations and checks and balances.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

#### CRJ 103 Criminal Law (A) 3 cr

The legal definition of crime and defenses; purposes and functions of the substantive criminal law; historical foundations; the limits of the criminal law.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

#### CRJ 105 Police Process (X) 3 cr

Social and historical perspectives on the police; police role and career; police discretion; police values and cultures; police organization and control.

Prereg: CRJ 101 or permission of instructor

#### CRJ 107 Adjudication Process (X) 3 cr

Role and structure of prosecution, public defense and the courts; basic elements of the substantive criminal law; procedural law and its relation to constitutional guarantees.

Prereg: CRJ 101 and 103, or permission of instructor

#### CRJ 109 Corrections Process (X) 3 cr

Post-conviction correction process; the development of correctional philosophy, theory and practice; a description of institutional operation, programming and management; community-based correctional probation and parole. Field trips are required. Prereg: CRI 101 or permission of instructor

### CRJ 113 Juvenile Justice Process (A)

Definition of delinquent behavior, contributing social problems; adolescence as a subculture; the adjudication process of juveniles; philosophy and practice; treatment procedures. Prereq: CRJ 101 or permission of instructor

#### CRJ 121 Criminology (A) 3 cr

Deviant behavior as it relates to the definition of crime; crime statistics; theories of crime causation; crime typologies.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

### CRJ 131 Social Issues in Criminal Justice (A) 3 cr

Designed to increase personal, professional, and academic awareness on contemporary issues in the criminal justice system, this course provides students with opportunities to investigate social issues such as racism, sexism, and domestic violence. At the end of the course, students have personal and practical awareness of these issues and their effects in the criminal justice system.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

#### CRJ 203 Criminal Investigation (X) 3 cr

Fundamentals of investigation; crime scene search and recording, collection and preservation of physical evidence; scientific aids; modus operandi; sources of information; interview and interrogation; follow-up and case preparation.

Prereq: CRJ 101, 105, or permission of instructor

#### CRJ 209 Community Policing in the 21st Century (X) 3 cr

Provides a practical understanding of the evolution and practice of community policing. The course examines the contrasts between traditional and community policing philosophies. Students are introduced to the skills necessary for the development of viable police/community partnerships. Through realistic exercises, students learn useful problem solving techniques which are a core element of the community policing strategy. Students also explore ethical issues in a community policing environment, obstacles to implementation, and future trends. Prereq: CRI 105 or permission of instructor

#### CRJ 215 Field Experience (X) 3 cr

An optional supervised field experience with an approved agency within the criminal justice system. The integration of classroom theory with practical experience. Placements are made at the discretion of the criminal justice faculty consistent with the policies of cooperating agencies.

Prereq: CRJ 101, 103, or permission of instructor

### CRJ 219 Issues in Constitutional Law (X) 3 cr

An examination of those provisions of the Constitution that directly relate to both federal and state law enforcement, and limitations placed on the enforcement activity through constitutional interpretation.

Prereq: CRJ 101, 103, or permission of instructor

### DANCE

### DAN 101 Introduction to Dance (HC) 3 cr

Provides students with an introduction to the fundamentals of dance, and exposure to a wide range of different styles of dance, both western and non-Euro-American. The course includes a daily technique class with instructor or guest teacher, lectures and class discussions, video viewing, and outside-of-class reading assignments. Styles of dance introduced and experienced in the course may include: jazz, ballet, African, tap, Middle Eastern dance, lsadora Duncan dance, social and folk dance, modern, Classical Indian dance, Renaissance, and Baroque dance.

Prereq: None

#### DAN 102 Pilates Mat Work (X) I cr

An introduction to the Pilates method of body conditioning. The Pilates method is a unique system of stretching and strengthening the muscles. The Pilates series of floor mat exercises strengthens and tones muscles, improves posture, flexibility and balance. The mat work movements and philosophy support an understanding of functional anatomy and reeducate the body about correct alignment. Through the work, students develop a strong center and suppleness. *Prerea: None* 

#### DAN 103 Jazz Dance I (HL) 1-3 cr

An introductory course in jazz dance. Classes consist of a full body warm up, and basic dance exercises to improve strength, flexibility, balance, and coordination. Students learn and practice the movement vocabulary essential to the jazz style, including body isolations, propulsive and syncopated rhythms, and standard jazz style traveling steps. The course presents the history of jazz dance as a fusion form with African roots, and its impact on concert dance and the entertainment industry through lecture, video viewing, outside-of-class reading, and assigned performance attendance. Students may earn a total of three credits in DAN 103.

Prereq: None

#### DAN 104 Jazz Dance II (HL) 3 cr

A continuation of the study and practice of the basic elements of dance, with emphasis on movement vocabulary essential to the jazz style. The course presents the history of jazz dance as a fusion form with African roots, and its impact on concert dance and the entertainment industry through lecture, video viewing, outside-of-class reading, and assigned performance attendance.

Prereq: 3 credits of DAN 103, or permission of instructor

#### \*DAN 105 African Dance I (HL) 1-3 cr

An introductory course in African Dance. Students learn traditional movements, rhythms, and dances from a variety of African cultures and countries. Lectures on African history, geography, and culture provide a background for understanding the importance of dance in African life. Assignments may include attending performances outside of class. Students may earn a total of three credits in DAN 105. *Prerea: None* 

#### \*DAN 106 African Dance II (HL) 3 cr

Continued practice of the traditional movements and dances of various African cultures. Increased emphasis on rhythmic awareness, coordination and performance style inherent in African dance. Lectures on African history, geography, and culture provide a background for understanding the importance of dance in African life. Assignments may include attending performances outside of class

Prereq: 3 credits of DAN 105, or permission of instructor

#### DAN 107 Ballet I (HL) 1-3 cr

An introduction to the study of classical ballet. Students learn the ballet terminology that denotes the traditional position of the feet, arms, and body, and the basic ballet steps. Each class includes barre work, center floor exercises to improve balance and coordination, and traveling across the floor combinations incorporating jumps and leaps. The course presents the rich history and theory of ballet, and its widespread cultural impact through lectures, video viewing, outside-of-class reading, or assigned performance attendance. Students may earn a total of three credits in DAN 107. Prereq: None

#### DAN 108 Ballet II (HL) 3 cr

A continuation of the study of classical ballet. Students learn the ballet terminology that denotes the traditional position of the feet, arms, and body, and the basic ballet steps. Each class includes barre work, center floor exercises to improve balance and coordination, and traveling across the floor combinations incorporating jumps and leaps. The course presents the rich history and theory of ballet, and its widespread cultural impact through lectures, video viewing, outside-of-class reading, or assigned performance attendance.

Prereq: 3 credits of DAN 107, or permission of

#### \*DAN 110 Caribbean Dance (HL) 3 cr

Designed to introduce students to dance forms that originated in Africa but are used primarily in the Caribbean. Students will learn

the history of the movements and the cultural links between Africa, the Americas, and the Caribbean.

Prereg: None

#### DAN III Modern Dance I (HL) I-3 cr

An introduction to modern dance. Students learn the terminology and practice the fundamental movement vocabulary of modern dance. Classes consist of a full body warm-up, specific modern dance exercises, traveling step patterns, short dance combinations, and improvisational assignments. Class activities are designed to increase strength, flexibility, coordination, rhythmic awareness and musicality, and self expression. The course presents the history, theory and significance of modern dance through lectures, video viewing, outside-of-class reading, or assigned performance attendance. Students may earn a total of three credits in DAN III. Prereg: None

#### DAN 112 Modern Dance II (HL) 3 cr

A continuation of the study of modern dance. Students gain proficiency in movement fundamentals, learning and performing dance combinations and locomotor movements to various rhythms and styles of music in large and small groups. The course presents the history, theory and significance of modern dance through lectures, video viewing, outside-of-class reading, or assigned performance attendance.

Prereq: 3 credits of DAN 111, or permission of instructor

#### DAN 114 Tap Dance I (HL) 1-3 cr

Introduction to the basic tap dance steps and their style of performance, in conjunction with general concepts of dance technique. Students learn traditional tap-step patterns such as time steps and waltz clog, and short combinations. The course presents tap history, including its development as a fusion of African and European dance-music forms through lectures, video viewing, outside-of-class reading and assigned performance attendance. Students may earn a total of three credits in DAN 114. Prereq: None

#### DAN II5 Tap Dance II (HL) 3 cr

A continuation of the study of tap dance, with increasing complexity and length of patterns. Students focus on clarity of rhythm and tap sounds, and body coordination, while working on style and expression. The course presents tap history, including its development as a fusion of African and European dance-music forms through lectures, video viewing, outside-of-class reading and assigned performance attendance.

Prereq: 3 credits of DAN 114, or permission of instructor

#### \*DAN 116 Middle Eastern Dance I (HL) I-3 cr

An introductory course in Middle Eastern Dance. Instruction includes the historical and social context in which the dance is traditionally performed, and general concepts of dance technique and practice. Students primarily learn Middle Eastern "Belly Dance," which functions as a form of social dance and/or entertainment. The class also studies regional or national dances, such as Lebanese debke, and dance steps to the 9/8 and 6/8 rhythms of Turkey and Armenia. Video viewing and outside-of-class reading assignments augment in-class practice. Students may earn a total of three credits in DAN 116. Prereg: None

### DAN 117 Middle Eastern Dance II (HL)

A continuation of the study of the movements, steps, and aesthetics of Middle Eastern Dance within the historical and social context in which it is customarily performed. Students refine their ability to perform traditional movements with emphasis on personal expression, correct performance style and quality, the ability to respond appropriately to various tempos, rhythms and meters, and the ability to learn choreographed dances or to improvise. Video viewing and outside of class reading assignments augment in-class

Prereq: 3 credits of DAN 116, or permission of

#### \*DAN 120 Dance in Culture (HC) 3 cr

Designed to introduce students to dance as a universal element of human culture. Students learn how dance functions within different societies as celebration, religion and ritual, socialization and courtship, as well as performance. Through outside reading, video and film viewing, in-class discussion, and dancing, students gain an understanding of diverse dance traditions, including non-Euro-American forms.

Prereg: Placement beyond or satisfactory completion of COL 090 and ENG 090

#### DAN 121 Dance History (HC) 3 cr

Survey course of the major events in the history of western theatrical dance. Topics covered include: Renaissance court dance, Baroque dance, Romantic, Classical, and Neo-Classical Ballet; Diaghilev's Les Ballets Russes; the emergence of modern dance in the 20th century; Black dance. Selected figures of dance history discussed, such as Louis XIV, Marie Taglioni, Isadora Duncan, Martha Graham,

Katherine Dunham, George Balanchine. Class format includes lecture, outside reading and inclass video and film viewing. Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

#### DAN 130 Choreography/Performance (HL) 3 cr

A study of the theory and practice of choreography. Students create their own dances, both solo and group pieces. The course explores the use of a variety of musical styles as accompaniment for dance, as well as other forms of accompaniment such as text or poetry. Students refine and rehearse selected dances to be performed in the semester's dance concert. Student choreographers gain practical experience in the complete production of their dances, such as selection of appropriate costume, music, and light effects. Prereq: None; concurrent enrollment in a dance studio course

#### DAN 201 Dance Repertory Group: Mixed Company (HL) 3 cr

Allows membership in the GCC sponsored dance repertory group, Mixed Company. Students learn, rehearse, and perform dances in a variety of styles in area schools, community centers, and at special events. Students also assist in classes and lecture/demonstration and dance teaching. Outside of class rehearsal and performance are required. Course may be taken up to two times for credit.

Prereq: DAN 101 or 120. Concurrent enrollment in a dance studio course. Open to students by audition or permission of instructor.

#### DAN 203 Jazz Dance III (HL) 3 cr

An intermediate course in jazz dance. Students continue to refine skills and movement vocabulary of the jazz style. Increased emphasis on performance skills, clarity of rhythm and line, expansion of range of movement, and personal expression. The course presents the history of jazz dance as a fusion form with African roots, and its impact as a performance style and in the entertainment industry through lecture, video viewing, outside-of-class reading, and assigned performance attendance.

Prereq: DAN 104, or permission of instructor

#### DAN 204 Jazz Dance IV (HL) 3 cr

A conclusion of the intermediate study of jazz dance. Students continue to refine skills and movement vocabulary of the jazz style at the intermediate level. Increased emphasis on clarity of rhythm and line, expansion of range of movement, and personal expression.

Assignments may include outside-of-class reading, video viewing, and performance participation.

Prerea: DAN 203

#### DAN 205 African Dance III (HL) 3 cr

An intermediate course in African dance. Students learn to execute polyrhythmic movement, and increase understanding of the relationship between the live drumming and dances. Students learn and practice increasingly complex movement combinations and choreography which incorporate songs of various African languages and integral parts of the dance. The course provides a background for understanding the importance of dance in African life through lectures on African history, geography, and culture. Assignments may include attending performances outside of class

Prereq: DAN 106, or permission of instructor

#### DAN 206 African Dance IV (HL) 3 cr

A conclusion of the intermediate study of African dance. Students continue to refine the performance of polyrhythmic movement, African songs, and complex choreography and traditional dances. Students learn to improvise/choreograph and perform short dance segments using the traditional movement vocabulary and style. The course provides a background for understanding the importance of dance in African life through lectures on African history, geography, and culture. Assignments may include attending performances outside of class. Prereq: DAN 205

#### DAN 207 Ballet III (HL) 3 cr

An intermediate course in classical ballet with emphasis on increased technical skill. Students learn principles of epaulement, placement, and multiple turns. Students may dance en pointe with instructor's approval. The course presents longer, more intricate combinations and repertoire, the rich history and theory of ballet, and its widespread cultural impact through lectures, video viewing, outside-of-class reading, or assigned performance attendance.

Prereq: DAN 108, or permission of instructor

#### DAN 208 Ballet IV (HL) 3 cr

A conclusion of the intermediate study of classical ballet. The course emphasizes performance skills. Students integrate technique with personal expression, and continue to learn and practice combinations and dances from the classical and contemporary repertoire. The course presents the rich history and theory of ballet, and its

widespread cultural impact through lectures, video viewing, outside-of-class reading, or assigned performance attendance.

Prereg: DAN 207

#### DAN 211 Modern Dance III (HL) 3 cr

An intermediate course in modern dance with increased emphasis on performance skills. The course presents specific techniques of modern dance pioneers, such as Graham, Humphrey-Weidman, Cunningham, and Taylor. Students learn and execute movement sequences and repertory dances with attention to quality, styles, musicality and expressiveness. Students are encouraged to work on individual creativity and development of personal movement style. The course presents the history, theory and significance of modern dance through lectures, video viewing, outside-of-class reading, or assigned performance attendance.

Prereg: DAN 112, or permission of instructor

#### DAN 212 Modern Dance IV (HL) 3 cr

A conclusion of the intermediate study of modern dance with continued emphasis on the development of individual performance quality and style and the mastery of dance technique in the modern dance tradition. Students are encouraged to explore their individual movement ideas through choreography and improvisation. The course presents the history, theory and significance of modern dance through lectures, video viewing, outside-of-class reading, or assigned performance attendance. *Prereq: DAN 211* 

#### DAN 214 Tap Dance III (HL) 3 cr

An intermediate course in tap dance with emphasis on the acquisition of performance skills, rhythmic accuracy and speed. Students learn traditional repertoire and time steps with their rhythmic breaks and explore improvisation. The course presents tap history, including its development as a fusion of African and European dance-music forms through lectures, video viewing, outside-of-class reading, and assigned performance attendance.

Prereq: DAN 115, or permission of instructor

#### DAN 215 Tap Dance IV (HL) 3 cr

A conclusion of the intermediate study of tap dance. Students continue to refine technical and performance skills, improve rhythmic accuracy and speed and to learn and practice traditional repertoire, time steps with their rhythmic breaks, and improvisation. The course presents tap history, including its development as a fusion of African and European dancemusic forms through lectures, video viewing, outside-of-class reading, and assigned performance attendance.

Prereq: DAN 214, or permission of instructor

### **ECONOMICS**

### ECO 101 Principles of Macroeconomics (BC) 3 cr

A study of economic analysis of the national and global economy with discussion of current issues. This course includes business cycles, unemployment, inflation, economic growth, banking systems, monetary and fiscal policies. Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090 and MAT 095

### ECO 102 Principles of Microeconomics (BC) 3 cr

A study of the economics of the firm, the consumer, and their interaction in the domestic and global marketplace. This course includes resource allocation, supply and demand, elasticity, market structure, labor, and an economic perspective of current issues facing business and society.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090 and MAT 096 or concurrent enrollment in MAT 096

### ECO 113 Environmental Economics (BC) 3 cr

Introduction to the contemporary problems of environmental quality. Economic analysis of the institutions and practices leading to pollution of air, water, and land resources. Study of alternative public policies for improving environmental quality.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

#### \*ECO 129 Economics of Emerging Nations (BC) 3 cr

Issues of economic growth in emerging nations. Topics include population, poverty, income distribution, property rights, rural development, and the role of trade and international investment. Students use case studies or other methodologies to examine developing nations and people groups. Prereq: Placement beyond or satisfactory completion of ENG 090, COL 090, and MAT 090

### **EDUCATION**

# EDU 101 Introduction to Early Childhood Education (A) 3 cr

Purposes of early childhood education and the role of the teacher. Considers the developmental needs of young children. Attention to physical environment, recording and reporting progress and administration. Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

#### EDU 103 Creative Experiences in Art, Music, and Drama (X) 3 cr

Deals with the methods, content, and theory of the arts as they relate to the young child. Students will develop leadership abilities and their ability to research, plan, and implement developmentally appropriate activities in the arts for young children.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090; ECE major, or permission of instructor

### EDU III Introduction to Special Education (L) 3 cr

Overview of development, physical, and behavioral disabilities; basic principles of intervention techniques; overview of legislation (Chapter 766) and its implications for the young child.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

### EDU 121 Reading and Language for the Young Child (X) 3 cr

Emphasizes the importance of effective communication and implements the belief that skills, abilities, and attitudes needed for such communication are identifiable and teachable. The integration of all the language arts into a curriculum for young children is stressed. Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

### EDU 123 Educating the Infant and Toddler (X) 3 cr

Emphasis is directed toward the education of the child from infancy to two years, nine months in group and home settings. Participants learn about early development, physical space, selection, and presentation of materials and activities, schedules, and strategies of child care for the very young child.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

### EDU 133 Day Care Administration (X) 3 cr

Explores the intricacies of managing a center for young children. Topics include the children, the curriculum, the environment, personnel management and development, budget and funding, legal concerns, state and local regulations and working with the parents and the community to provide a sound program for young children.

Prereq: EDU 201; Recomm: Office of Child Care Services (OCCS) Lead Teacher Qualified

#### \*EDU 139 Women in Education (L) 3 cr

A study of women in education that explores the historical perspective of women's schooling, their contributions to the field of education, and contemporary children's experiences in school. Emphasis on the strategies of inclusive teaching. Prereq: WST 115 or permission of instructor

#### EDU 141 Building Teacher-Parent Relationships (X) 3 cr

Examines the inherent complexities of the parent-teacher/caregiver relationship and explores techniques for improving communication. Diverse family structures will be examined and discussed in view of their implications for teachers, parents, and children with attention to increasing parent involvement and creating successful partnerships with parents.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

### EDU 201 Early Childhood Curriculum (X) 3 cr

Organization of curriculum including the research, theory, methods, and materials necessary in a classroom of young children. Emphasis on reading readiness and language skills.

Prereg: EDU 101 or permission of instructor

### EDU 205 Philosophy of Education (A) 3 cr

Examines the role of school in society, the organization and history of American education, the historical foundations of education and its theorists. The relationship between theoretical perspectives and current issues emphasized.

Prereg: ENG 101, 103, or 105

#### EDU 215 Student Teaching I (X) 6 cr

Provides work experience in an early childhood setting with responsibility for setting up a safe and healthy environment; providing for social and emotional development in children; and becoming a professional teacher. Placement in a teaching site for EDU215 is not guaranteed and depends upon agreement among the teaching site, the EDU faculty, and the student.

Prereq: EDU 101 and permission of the program coordinator

#### EDU 216 Student Teaching II (X) 6 cr

Provides work experience in an early childhood setting with extensive responsibility for the total management of a classroom; experience working with families; and providing an environment which promotes physical and intellectual competence in children. Placement in a teaching site for EDU216 is not guaranteed and depends upon agreement among the teaching site, the EDU faculty, and the student.

Prereq: EDU 215 or permission of instructor

### EDU 243 Leadership in Early Education and Care (A) 3 cr

Offers early education and care professionals who work closely with children and families the opportunity to expand their roles as leaders and advocates in early childhood programs. Through reflection and analysis, students consider the historical foundations of early childhood education as well as the current socio-economic systems and policies which affect the field. The course examines theoretical frameworks of individual and organizational leadership. In addition, the course addresses concrete skill development, including coalition building, effective organizing and advocacy strategies, communications and media work.

Prereq: Completion of or concurrent enrollment in EDU 216 or permission of instructor contingent upon experience in the field of early education and care for at least a year

# EMERGENCY MEDICAL SERVICES

# EMS 101 Emergency Medical Technician - Basic (X) 6 cr

Provides training in the primary care of injuries, semiautomatic external defibrillator (AED), acute illnesses, birth, and people in emergency situations. Students learn rescue extrication, transportation, communication, medical-legal aspects, and ambulance training. The course is taught using lectures, slides, demonstration, and practice. Students completing the course are eligible for the Massachusetts Basic EMT examination. Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

# EMS 105 Principles of Advanced Life Support (X) 5 cr

Introduces the certified EMT to principles of Department of Transportation Advanced Life Support curriculum. Students study roles and responsibilities, EMS systems, legal and ethical issues, patient assessment, fundamentals of respiration and advanced airway management. The course includes the fundamentals of perfusion and techniques of intravenous therapy.

Prereq: Current EMT certification. Placement beyond or satisfactory completion of COL 090, ENG 090, MAT 090. Concurrent enrollment or completion of BIO 108 or equivalent

### EMS 106 EMT – Intermediate Internship (X) 2 cr

Provides supervised clinical and field experiences for EMT–Intermediate Students. Students attend two class meetings and complete all Massachusetts and program clinical and field requirements within prescribed deadlines. Students are eligible to take the Massachusetts EMT-Intermediate Examination upon successful course completion. Only non-paramedic certificate students may enroll in this course. Prereq: Successful completion of EMS 105

#### EMS 202 Pharmacology (X) 2 cr

Introduces pharmacology, pharmacokinetics and pharmacodynamics. The course includes a review of the metric system. Students calculate drug dosage concentrations and IV medication infusion rates. The course introduces basic concepts of pathophysiology. Prereq: Successful completion of EMS 105 or permission of instructor

#### EMS 203 Management of Medical and Shock-Trauma Emergencies (X) 8 cr

Expands upon pharmacological interventions and integrates patient management skills with medical and trauma situations encountered by paramedics. The course includes the pathophysiology and management of disease processes and shock-trauma conditions. It provides special considerations of neonatology, pediatrics, geriatrics, medical incident command and rescue situations. Students begin limited clinical experiences. Students receive PreHospital Trauma Life Support (PHTLS) certification and Pediatric Education for Prehospital Professionals (PEPP-Advanced Life Support) certification upon successful course completion. Prereq: Successful completion of EMS 202 or

#### EMS 204 Management of Cardiovascular Emergencies (X) 8 cr

permission of instructor

A comprehensive approach to adult cardiac emergencies encountered by paramedics. The course includes cardiovascular pathophysiology, 3-lead and 12-lead dysrhythmia interpretation techniques, dysrhythmia management, electrical therapy and cardiac pharmacology. Students practice intensive patient management simulation. The student receives Advanced Cardiac Life Support (ACLS) certification upon successful course completion.

Prereq: Successful completion of EMS 203 or permission of instructor

#### EMS 210 Paramedic Clinical (X) 2 cr

Provides student with practice of invasive skills and patient management under the supervision and direction of licensed hospital staff. Students attend one class meeting and produce a research paper based on clinical experiences. Students attend Pediatric Advanced Life Support seminar (off-campus) and receive Pediatric Advanced Life Support (PALS) certification upon successful seminar completion.

Prereq: Successful completion of EMS 204. Concurrent registration in EMS 211.

#### EMS 211 Paramedic Fieldwork Internships I (X) 2 cr

Provides assignments with certified paramedics. Students perform pre-hospital treatment under supervision.

Prereq: Successful completion of EMS 204.

Concurrent registration in EMS 210

### EMS 212 Paramedic Fieldwork Internship II (X) 2 cr

A continuation of fieldwork assignments with certified paramedics. The course includes fieldwork rotation at a high-volume EMS system outside of New England. The student is eligible to take Massachusetts and National Registry qualifying examinations upon successful completion of the course. Prereq: Successful Completion of EMS 211

### **ENGINEERING**

#### EGR 101 Surveying (X) 3 cr

Elements of plane surveying, taping, theory and use of instruments, leveling, traversing, and computation. Lab required.

Prereq: MAT 107 or its equivalent; may be taken concurrently

### EGR 103 Engineering Orientation (X) I cr

An introduction to the field of engineering. The work of the technician and his relationship to the engineer. Typical engineering projects.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

### EGR 107 Engineering Graphics I (X) 3 cr

Introduction to engineering graphics concepts and applications. Lettering, scaling, orthographic projection, pictorials, sections, auxiliary views, dimensioning, tolerances, fasteners. Sketching and some instrument work employed. Introduction to computer-aided drafting included.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090; Recomm: Understanding of coordinate geometry

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### EGR 108 Engineering Graphics II (X) 3 cr

Development of skills with manual instruments, drafting machines, and computers in the production of working drawings. Descriptive geometry, developments and intersection, graphical math. Engineering graphics for specific disciplines. Project work and CAD.

Prereq: EGR 107 or equivalent

### EGR 110 Engineering Graphics Project (X) 3 cr

Preparation of complete working drawings for selected engineering disciplines. Emphasis on developing a high level of manual and CAD skills

Prereq: Corequisite EGR 108 and enrollment in Computer-Aided Drafting Certificate Program, or permission of instructor

#### EGR 205 Statics (X) 3 cr

Components and resultants of forces, concurrent and non-concurrent force systems. Free body diagrams. Couples and moments, centroids, moment of inertia, friction. Distributed loads.

Prereq: PHY 101 or 111; MAT 151 or 201 concurrently

### EGR 206 Mechanics of Materials (X)

Axial and shear stress and strain, torsion, bending, shear and moment diagrams. Deflection, columns, connections, indeterminate beams. Prerea: EGR 205

### **ENGLISH**

### ENG 090 College Writing Strategies (D) 4 cr

Develops the writing strategies, critical thinking skills, research methods, and confidence required in English Composition I and other college-level courses. This course covers word processing and methods of using print texts, electronic texts and databases, as well as techniques for evaluating those resources. This course does not satisfy the English composition requirements of the College and does not fulfill associate degree credit requirements. "C-" is the lowest passing grade in this course. Prerea: None

### COL 090 College Reading Strategies (D)

Develops reading study skills for comprehension, vocabulary building, and critical reading and thinking. Students learn techniques for effectively and efficiently obtaining information from reading materials, especially textbooks. The course covers word processing and methods for conducting research using print texts, electronic texts and databases, as well as techniques for evaluating those resources. This course does not satisfy the English composition requirements of the College and does not fulfill associate degree credit requirements; "C-" is the lowest passing grade in this course. Prereq: None

### COL 095 College Writing and Reading Strategies (D) 3 cr

Improves reading, writing, critical thinking, and study skills, using each to reinforce the development of the others. This course is a bridge between ENG 090/COL 090 courses and Composition I, although enrollment is not limited to students who have taken developmental courses. Students focus on analysis and comprehension of reading using print and electronic texts from their other college courses. The course also offers extensive practice writing essays, summaries, personal responses, and answers to essay questions, as well as a grammar review and individualized instruction. In addition, students review word processing and methods of conducting and evaluating research using print and electronic texts. This course does not satisfy the English composition requirements of the College and does not fulfill associate degree credit requirements; "C-" is the lowest passing grade in this course. Prereq: None

#### English Composition I (ENG 101, 103, 105)

A study of the various aspects of reading and writing expository prose. The coursework emphasizes analytical reading, critical thinking, oral and written communication skills, and research and documentation. The course also covers basic word processing and e-mail skills, as well as instruction in the mechanics of locating and evaluating information in electronic texts and databases. Three options are available; students receive credit for only one.

#### ENG 101 English Composition I: Expository Writing (E) 3 cr

Focuses on the writing of essays. This course offers students the opportunity to understand writing as a process and to develop clear, effective presentation of ideas. The student develops an awareness of the relationship between writer and reader. The course includes word processing methods and research and documentation using print and electronic texts. Students may receive credit for only ENG 101 or ENG 103 or ENG 105. Prereq: COL 090 and ENG 090, or satisfactory placement test score

#### ENG 103 English Composition I: Purposes and Technique of Prose (E) 3 cr

Emphasizes expository writing for students who feel confident of their skills in analysis and organization. The student develops an understanding of voice in writing. The course includes word processing methods and research and documentation using print and electronic texts. Students may receive credit for only ENG 101 or ENG 103 or ENG 105. Prereq: COL 090 and ENG 090, or satisfactory placement test score

### ENG 105 English Composition I:The Impact of Language (E) 3 cr

Develops a personal writing style to express the results of critical and analytic thinking. This course is designed for the student who enjoys reading and writing and includes assignments from essays, novels, poetry, and other materials which serve as models and sources for written exercises. The student explores the history of the English language. The topics for discussion and writing include the languages of race, gender, advertising, and politics. The course includes word processing methods and research and documentation using print and electronic texts. Students may receive credit for only ENG 101 or ENG 103 or ENG 105. Prereq: COL 090 and ENG 090, or satisfactory placement test score

### ENG 109 English Grammar and Usage (HL) 1 cr

A survey of the elements, structures, mechanics, conventions, and rhetorical devices by which writers make their meanings clear to their readers.

Prereq: None

#### English Composition II (ENG 112, 114, 116)

A study of the imaginative and symbolic use of language. The coursework emphasizes the development of critical standards and written responses to fiction, poetry, drama, and in some options, to other print and electronic sources. This course focuses on analysis, critical thinking, and writing. Three options are available; students receive credit for only one.

### ENG 112 English Composition II: Exploring Literature (E) 3 cr

Examination and analysis of the three major literary genres: prose fiction, poetry, and drama. Writing assignments emphasize the formal, thoughtful, "critical" paper, but do not preclude more personal and creative responses. Students develop analytical standards for both reading and writing about literature. The course includes selections from

a wide variety of authors. Students may receive credit for only ENG 112 or ENG 114 or ENG 116.

Prereq: ENG 101, 103, or 105

# ENG 114 English Composition II: Literature and Creative Writing (E) 3 cr

Examination of the creative modes of writing: short fiction, poetry, drama, and song. The writing assignments include creative experiments and literary analysis. The student develops skills in the production as well as understanding of literary art. Students may receive credit for only ENG 112 or ENG 114 or ENG 116.

Prereg: ENG 101, 103, or 105

# ENG 116 English Composition II: Analysis of Literature and Film (E) 3 cr

Study of film, fiction, poetry, and drama from Western and non-Western cultures. Coursework involves analysis of other electronic media which may include television, radio, and computer-mediated text. Students produce written work stressing critical evaluation and participate in classroom analysis of printed and electronic text. Students may receive credit for only ENG 112 or ENG 114 or ENG 116.

Prereg: ENG 101, 103, or 105

#### ENG 123 Report Writing (L) 3 cr

Intense study and practice in the writing of letters, memos, and reports (proposals or feasibility studies) related to specific technical and service occupations. Instruction in persuasive writing, presentation techniques, resume writing, use of graphics, research, and documentation. Term project required. *Prereq: ENG 101, 103, or 105* 

### ENG 201 Western Literature I (HC) 3 cr

Reading and critical analysis of selected literary masterpieces from early Greek through the Elizabethan era.

Prereq: ENG 112, 114, or 116

### ENG 202 Western Literature II (HC) 3 cr

Reading and critical analysis of selected literary masterpieces from the Elizabethan era to the present.

Prereg: ENG 112, 114, or 116

### ENG 203 American Literature I (HC) 3 cr

Critical study of significant achievements in American literature from the Puritan period through the period of the Reconstruction. Emphasis on the growth of an American literature, its modes and purposes. Prereq: ENG 112, 114, or 116

### ENG 204 American Literature II (HC) 3 cr

Critical study of significant achievements in American literature from the late 19th century to the present. Emphasis on literary modes and thought as they reflect the modern society.

Prereq: ENG 112, 114, or 116

#### ENG 205 British Literature I (HC) 3 cr

Readings in English literature from the Anglo-Saxon period to the late 17th century. Major emphasis on Chaucer and Shakespeare. Prereq: ENG 112, 114, or 116

#### ENG 206 British Literature II (HC) 3 cr

Readings in English literature from the late 17th century to the present.

Prereg: ENG 112, 114, or 116

### ENG 207 Advanced Creative Writing I (HC) 3 cr

Techniques and approaches in narrative, lyric, and dramatic forms of writing.

Prereq: ENG 112, 114, or 116. Note: This course does not fulfill the Liberal Arts literature requirement.

### ENG 208 Advanced Creative Writing II (HC) 3 cr

Techniques in narrative, lyric and dramatic forms of writing for students who have completed ENG 207 and wish to continue exploring the problems of creative writing. Prereq: ENG 112, 114, or 116 and ENG 207. Note: This course does not fulfill the Liberal Arts literature requirement.

#### ENG 211 Modern Novel (HC) 3 cr

Themes and methods of novelists of the modern western world. This course explores such topics as alienation and the failure of communication and gives attention to modern experiments in point of view, structure, and style.

Prereq: ENG 112, 114, or 116

#### \*ENG 219 Ethnic Literature (HC) 3 cr

A study of American literature through writers representative of various ethnic groups in the United States.

Prereg: ENG 112, 114, or 116

#### ENG 221 Shakespeare (HC) 3 cr

A critical study of a selected group of plays by Shakespeare, approached by theme. The course will also give some attention to contemporary presentations or adaptations. *Prereq: ENG 112, 114, or 116* 

### ENG 224 Technology and Literature (HC) 3 cr

A critical examination of the impacts of technology on literature as expressed in poetry, fiction, essay, film, and electronic text. Students consider how technological developments from factory production and the railroad to the personal computer and genetic engineering have influenced literature, art, thought, communication, work, and community.

Prereq: ENG 112, 114, or 116

#### ENG 229 Gothic Literature (HC) 3 cr

A critical and analytical study of the gothic tradition in both classic and modern supernatural literature, with some attention to film. Students examine the significance of the supernatural horror tale in its larger literary, social, and cultural context.

Prereg: ENG 112, 114, or 116.

#### \*ENG 235 Survey of Latin American Literature (HC) 3 cr

A study of Latin American writings from the pre-Columbian era to the present. Emphasis on the social, political, and cultural forces that have shaped the voices of contemporary Latin American literature. Authors include Bartolome de las Casas, Andres Bello, Ruben Darlo, Clorinda Matto de Turner, Jorge Borges, Isabel Allende, and Gabriel Garcia Marquez. Prereg: ENG 112, 114, or 116

# ENG 240 Special Topics in Literature (HC) 3 cr

A study of relevant topics in English not covered in the current selection of courses. The English Department will determine the topic each semester. Prereg: ENG 112, 114, or 116

### ENG 241 Survey of Children's Literature (HC) 3 cr

Wide reading of classic and current children's literature, including the history and development of the genre. This course examines criteria for judging children's books and reviews classroom techniques in early childhood education.

Prereg: ENG 112, 114, or 116

#### ENG 243 Modern Poetry (HC) 3 cr

An examination of modern poetry with an emphasis on interpretation and analysis of voice, language, sound, and form. This course provides an in-depth study of some major innovators as well as a study of other contemporary poets.

Prereg: ENG 112, 114, or 116

### \*ENG 247 Women in Literature I (HC) 3 cr

A study of works by women writers through the 19th century. Students discuss literature in various genres within the historical and social context of the times, in relation to early literary movements and from the perspective of a unique female literary tradition. Prereq: ENG 112, 114, 116

### \*ENG 248 Women in Literature II (HC) 3 cr

A study of poetry, short fiction, novels, and drama that presents the richness of diversity in the work of women writers from the 20th century to the present. Students focus on the voice of the writer and her use of literary technique as she explores important themes in women's lives.

Prereg: ENG 112, 114, 116

# ENG 253 Valley/American Literature (HC) 3 cr

A critical study of American literature from the Puritan period to the present with focus on the significant achievements of Valley writers. This course explores the impact of the geographical, social, and cultural environment of the Pioneer Valley on their works. Students study Jonathan Edwards, Emily Dickinson, Mark Twain, Robert Frost, Archibald MacLeish, and other writers.

Prereg: ENG 112, 114, 116

#### ENG 261 The Short Story (HC) 3 cr

A survey of the short story as a literary genre from its beginnings in the early 19th century to the present time with emphasis on interpretation and analysis, characters in conflict, point of view, and symbolism. Prereg: ENG 112, 114, or 116

### ENGLISH FOR SPEAKERS OF OTHER LANGUAGES

#### ESL 102 Writing—Advanced Beginners Level (X) 3 cr

Focuses on basic writing skills needed for successful participation in American communities, including sentence structure, paragraph structure, mechanics, and introduction to academic writing. Individualized programs are provided as needed. Writing and computer laboratories are required.

Prereq: Placement by examination

### ESL 103 Written English—Intermediate Level (X) 3 cr

Develops students' writing skills for academic and professional use, such as patterns of organizing paragraphs and compositions, basic business letters, exercises in sentence structure and other composition skills. Writing and computer laboratories are required.

Prereg: ESL 102 or placement by examination

### ESL 104 Written English—Advanced Level (X) 3 cr

Emphasizes advanced writing skills in preparation for beginning-level college courses, such as research paper, reading and writing responses, essays, compositions, and grammar of advanced sentence structure. Writing and computer laboratories are required.

Prereq: ESL 103 or placement by examination

### ESL 106 English Grammar—Advanced Beginners (X) 3 cr

Focuses on the systematic study of basic English grammar patterns through reading, writing, listening, and discussion. Individualized programs are provided as needed. Laboratory is required.

Prereg: Placement by examination

# ESL 107 American English Grammar in Context (X) 3 cr

The study of intermediate-level grammar patterns in English, with focus on verb tenses and on parts of speech. This course emphasizes recognition and understanding of grammar patterns in reading and speech, and the development of grammar skills in writing. Laboratory is required.

Prereq: ESL 106 or placement by examination

# ESL 108 American English Grammar in Use (X) 3 cr

Continued study of English verb tenses and parts of speech. The course includes practice of other complex patterns needed for college

coursework in English as well as a review of articles and advanced sentence structure. Students will learn accurate and appropriate use of grammar patterns in writing. Laboratory is required.

Prereg: ESL 107 or placement by examination

### ESL 109 Intermediate Grammar Review (X) 2 cr

An intensive grammar workshop for students who have completed ESL 107 or other intermediate ESL grammar courses. Students practice and master what they have learned about basic English verb tenses, question patterns, and subject-verb agreement. Students review grammar through listening, speaking, pronunciation, reading, writing, group work, and discussion.

Prereq: ESL 107 or permission of instructor

### ESL 110 ESL Computer Training (X)

Introduces English terms for basic keyboarding operations. Students develop techniques and concepts for word-processing using both Macintosh and IBM clone computers. ESL students begin to use electronic mail and learn how to find information on the Internet. Prereq: Concurrent enrollment in ESL103 or permission of instructor

### ESL 112 Spoken English—Advanced Beginners (X) 3 cr

Emphasizes development of basic vocabulary, pronunciation, listening and speaking skills needed to communicate in class, in the community, and in social situations. Laboratory is required.

Prereq: Placement by examination

# ESL 113 Spoken English—Intermediate Level (X) 3 cr

Emphasizes development of vocabulary, pronunciation, listening and speaking skills through group discussions, role plays, oral presentations, and interactive tasks. Content units reflect student interest in social and global issues and in situations from everyday life. Laboratory is required.

Prereq: ESL 112 or placement by examination

#### ESL 114 Spoken English— High Intermediate Level (X) 3 cr

Expands listening and speaking skills for academic activities such as note-taking during class lectures, summarizing and reporting information taken from the media, debating, taking part in discussions, and interviewing, Individual programs in pronunciation and clear speech are provided as needed. Laboratory is required.

Prereq: ESL 113 or placement by examination

### ESL116 Connections (Intermediate Listening) (X) 3 cr

Emphasizes development of intermediate level English vocabulary, pronunciation, and listening skills through viewing and class discussion of the ESOL video drama "Connect With English." Course content includes basic aspects of North American culture such as career development, family responsibilities, and U.S. travel. Reading and writing activities provide additional language practice. Prereq: Concurrent enrollment in ESL 112 or permission of instructor

### ESL 117 English Sounds and Spelling (X) 3 cr

Provides practice for non-native speakers in American English pronunciation as it relates to basic patterns of spelling Techniques from phonetics and phonics help students master "exceptions" or words with irregular spelling and/or pronunciation. Students apply understanding of sounds, rhythm, intonation, spelling of syllables, and spelling rules in creative practice for people with diverse learning styles.

Prereg: ESL 112, ESL 116, or permission of instructor

# ESL 122 Reading and Vocabulary— Advanced Beginners (X) 3 cr

Introduces strategies for improving reading comprehension, using the dictionary and expanding vocabulary. Students present oral and written book reports and focus on active reading of fiction and non-fiction on a variety of topics. Laboratory is required. Prereq: Placement by examination

#### ESL 123 Reading and Vocabulary— Intermediate Level (X) 3 cr

Focuses on reading comprehension, vocabulary development, book reports, note-taking and test-taking strategies for intermediate-level ESL students. Students read fiction, non-fiction, newspapers, and a wide range of subjects to provide a foundation for success in college and the workplace. Laboratory is required.

Prereq: ESL 122 or placement by examination

#### ESL 124 Reading and Vocabulary— High Intermediate (X) 3 cr

An intensive study of reading processes, college-level material including literature, and many kinds of college tests. Students learn techniques for independent vocabulary acquisition and effective writing about reading material in book reports and other writing assignments. Laboratory is required. Prereg: ESL 123 or placement by examination

#### ESL 125 Vocabulary for College Courses (X) 3 cr

For advanced non-native speakers of English who plan to enroll in college programs. The course introduces concepts, essential vocabulary, and study skills which students need in first-year college requirements. Modules of readings and vocabulary include psychology, sociology, anthropology, business, and literature.

Prereq: ESL 124 or placement by examination. Recomm: Concurrent enrollment in ESL 115, ENG 090. and COL 090

# FIRE SCIENCE TECHNOLOGY

### FST 101 Introduction to Fire Protection and Fire Prevention (X) 4 cr

An introduction to fire science, with an emphasis on fire safety education, including prevention and protection. This course includes an historical survey of fire services, principles of flame and smoke spread, flammable liquids, gases, explosions, residential and industrial hazards. The course surveys residential and commercial fire safety inspections, safety demonstrations, extinguishment techniques, public and news media relations.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

### FST 105 Organizational Management (X) 3 cr

An exploration of organizational principles with emphasis on fire department organization. Students study the history, types, methods and principles of fire department organization, both formal and informal, line and staff. The course places emphasis on supervisory responsibilities and functions. Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

#### FST 109 Hazardous Materials I (X) 3 cr

Includes a review of basic chemistry, storage and handling of hazardous materials, laws, standards and fire fighting practices within extreme fire hazard areas. Demonstrations illustrate and supplement the class work. Prereq: FST 101 and CHE 105 or CHE111 or permission of instructor or program coordinator

### FST 110 Hazardous Materials II (X) 3 cr

A continuation of Hazardous Materials I.This course provides guidance on how to inspect property for possible accidents involving hazardous materials and how to plan for the prevention of such accidents. Students study

the storage and transporting of hazardous materials as well as related protective systems and inspection procedures.

Prerea: FST 109

#### FST 111 Building Construction (X) 3 cr

An exploration of building construction and design with an emphasis on fire protection concerns. The course reviews statutory and suggested local, state, and national guidelines. Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

#### FST 113 Fire Hydraulics (X) 3 cr

A study in incompressible fluids including fluid properties, principles of fluid status, fluid flow system principles, pipe friction and heat loss, flow measurements, pumps, and other hydraulic devices and machinery. Students study the applications of fire protection systems such as sprinklers, standpipes, hoses, nozzles, pumpers, and water supply systems. Demonstrations illustrate and supplement the principles developed in the class. *Prereq: Placement beyond or satisfactory completion of COL 090, ENG 090, and MAT 095* 

#### FST 129 Emergency Incident Management (X) 3 cr

The study of command and control activities at emergencies together with techniques of fire suppression. Topics include pre-incident planning, command organization, incident size-up, and strategic and tactical planning. This course stresses the integration of local, regional, and national emergency management systems.

Prereq: FST 101 or permission of instructor or program coordinator

### FST 201 Fire Protection Systems and Equipment I (X) 3 cr

Reviews automatic and manual detection and extinguishing systems, including sprinkler and standpipe systems, inert gases, foam and dry chemicals, temperature and smoke responsive devices, and alarm and signaling systems. Demonstrations illustrate and supplement the class work.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

### FST 202 Fire Protection Systems and Equipment II (X) 3 cr

A continuation of Fire Protection Systems and Equipment I for people interested in advanced fire control systems. The course places particular emphasis on sprinkler systems, and covers Halogen agents.

Prered: FST 201

#### FST 203 Fire Fighting Tactics (X) 3 cr

Review of fire chemistry, equipment, and fire fighting personnel. Basic fire-fighting tactics and strategy; methods of attack; pre-planning fire problems. Fire situations for analysis and study. *Prereg: FST 101, 103, and 113* 

### FST 205 Fire Causes, Detection, and Investigation (X) 3 cr

Explores the history, development and philosophy of fire investigation and detection. This course includes inspection techniques, gathering evidence and development of technical reports, fundamentals of arson investigation, processing of criminal evidence and criminal procedures related to various state and local statutes.

Prereq: FST 101 or permission of instructor or program coordinator

#### FST 206 Legal Aspects of Fire Protection (X) 3 cr

Legal rights and responsibilities of fire fighters and departments in performing their duties. This course also examines the range of fire laws affecting property owners and others. Students cover recent developments in government regulations and liability concerns. Prereq: FST 101 or permission of instructor or program coordinator

### FST 207 Fire Codes and Ordinances (X) 3 cr

A review of national, state, and local laws and ordinances which influence the field of fire protection. The course places particular emphasis on local situations.

Prereq: FST 101 or permission of instructor or program coordinator

### **FOLKLORE**

#### FLK 217 American Folklore (HC) 3 cr

An introduction to the materials and methods of the study of American folklore, with emphasis on its appreciation, on its relevance to the development of literature, and its relationship to lifestyles. Folklore and folk literature of the southern Appalachian serve as models for study.

Prereq: ENG 112, 114, or 116

#### FLK 218 Storytelling (HC) 3 cr

Folktales from American, European, and other ethnic folklore traditions are examined from a contemporary perspective. Attention given to structure, content, language, literary and social issues, and techniques. Students learn to tell the folktale within the context of their own cultural experiences.

Prereg: ENG 112, 114, or 116

#### FLK 219 Valley Folklife (HC) 3 cr

An introduction to the materials and methods of American folklore studies with emphasis on specific areas of Valley folklife as evidenced in music, story, art, architecture, dance, customs and festivals, as well as in other manifestations or oral, customary, and material folk traditions. Students work on a class project examining a unique aspect of Valley folklife. Credit can be granted for FLK 217 or FLK 219 but not for both.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

### **FRENCH**

#### FRE 101 Elementary French I (HC) 4 cr

Fundamentals of French. Acquisition of language functions, vocabulary structures, and culture through contextualized presentations, interactive activities, and extensive laboratory practice.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

#### FRE 102 Elementary French II (HC) 4 cr

Fundamentals of French. Continued acquisition of language functions, vocabulary, structures, and culture through contextualized presentation, interactive activities, and extensive laboratory practice.

Prereq: FRE 101, one year of high school French or equivalent, or permission of instructor

### FRE III French Skills Practice I (X) 2 cr

An intensive immersion workshop conducted in French, for students who have completed at least FRE 101 or who are returning to the study of French. Using the material studied in FRE 101, students will work to practice and internalize the basic building blocks of French in listening, speaking, reading, and writing. Prereq: FRE 101 or equivalent, or permission of instructor.

#### FRE 201 Intermediate French I (HC) 4 cr

Emphasizes continued acquisition of language functions, vocabulary, idioms, structures, and culture through contextualized presentations, interactive activities, video, and selected readings. The class is conducted in French. Prereq: FRE 102 or equivalent, or permission of instructor

### FRE 202 Intermediate French II (HC)

A conclusion of the intermediate study of French. The course emphasizes continued acquisition of language functions, vocabulary, idioms, structures, and culture through contextualized presentations, interactive activities, video, and selected readings. The class is conducted in French.

Prereq: FRE 201 or equivalent, or permission of instructor

### FRE 251 French Composition and Conversation I (HC) 4 cr

Development of advanced writing and speaking skills. The course covers representative works of Francophone literature, available cultural readings and periodicals through class discussion and of oral and written assignments. The class is conducted in French.

Prereq: FRE 202 or equivalent, or permission of instructor

### FRE 252 French Composition and Conversation II (HC) 4 cr

Continued development of advanced writing and speaking skills. The course covers representative works of Francophone literature, available cultural readings and periodicals through class discussion and of oral and written assignments. The class is conducted in French.

Prereq: FRE 251 or equivalent, or permission of instructor

### **GEOGRAPHY**

### GGY 101 Introduction to Geography (HC) 3 cr

Explores major geographic concepts, contemporary world regions and the development of the science of geography. Subjects of discussion range from basic map and globe concepts to population dynamics and economic development. Student use case studies from around the world to increase their awareness of geography. Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

### **GEOLOGY**

#### GEO 101 Physical Geology (NC) 4 cr

Nature and origin of the landscape; features of the earth's surface; common rocks and minerals; agents of erosion; role of earthquakes, volcanoes, and the mountain building process. Particular attention to regional geology. Lab and Field trips are required. Credit can be granted for GEO 101 or GEO 103, but not for both.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

#### GEO 102 Historical Geology (NC) 4 cr

An introduction to the origin and development of the earth, with emphasis on the Eastern United States. Topics include geologic time, myths and science of creation, meaning and interpretation of rocks and fossils. Lab and Field trips are required. Credit can be granted for GEO 102 or GEO 103, but not for both.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

#### GEO 103 Valley Geology (NC) 4 cr

An introduction to the unique geology and geohistory of our region. Topics include rocks, minerals, rivers, glaciers, dinosaurs, continental drift, resources, and geologic hazards. Lab required. If credit is granted for GEO 103, it cannot also be granted for either GEO 101 or GEO 102.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

### GEO 104 Introduction to Oceanography (NC) 4 cr

The nature of the ocean realm—its physical, chemical, biologic, and geologic characteristics and importance. Topics to be discussed: origin and characteristics of ocean basins, physical and chemical nature of sea water, origin and movement of water masses, importance of the oceans to life on earth. Lab and Field trips are required. Credit can be granted for GEO 104 or GEO 105 but not for both.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090  $\,$ 

### GEO 105 Survey of Oceanography (NC) 3 cr

Introduction to ocean science. Deals with how the oceans affect the earth. Topics include ocean life and ecosystem, origin of sea water and ocean basins, coastal zones, mineral and fishery resources. Field trips. No lab. Credit can be granted for GEO 104 or GEO 105 but not for both.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

### **HEALING ARTS**

#### HAO 101 Healing Arts (X) 12 cr

Awards 12 credits to graduates of the Stillpoint Center School of Massage, Inc. who enroll in the Liberal Arts/General program or the Liberal Arts/Healing Arts Option program and earn 15 GCC liberal arts credits. The course of study at Stillpoint includes body work sciences of anatomy and physiology, myology, kinesiology, pathology, and hydrotherapy; massage theory and technique of Swedish massage, body awareness, body mechanics, and therapeutic techniques; and professional development and clinical applications.

Prereq: Graduate of Stillpoint Center School of Massage, Inc.

# HEALTH FITNESS AND WELLNESS

### HFW 100 Survey of Movement Science (A) I cr

Provides the student with an introductory study and critical analysis of the movement science profession.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

#### HFW 101 Introduction to Exercise Science (A) 3 cr

Provides the student with the opportunity to examine the cardiorespiratory, musculoskeletal, and nervous systems of the body and the impact of exercise on their functioning. Topics may include the effect of changing one's own personal exercise habits, risk factors for cardiovascular disease, longevity, and quality of life. Students participate in fitness assessments for body composition, muscular strength and endurance, flexibility and cardiovascular endurance.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

#### HFW 103 Principles of Health and Well-Being (A) 3 cr

Provides the student with awareness and knowledge of wellness issues. This course is geared toward the development and implementation of lifestyle behaviors to encourage more positive lifestyles and overall well-being. Topics may include lifestyle choices, stress management, nutrition, weight control, physical activity, cardiovascular health, smoking, substance misuse, and sexually transmitted diseases.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

#### HFW 104 Foundations of Movement Science I (A) 3 cr

Provides the student with the opportunity to examine the historical and philosophical foundations of human movement and sport.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

#### HFW 105 Foundations of Movement Science II (A) 3 cr

Provides the student with the opportunity to examine the sociological and psychological foundations of human movement and sport. Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

### **HISTORY**

### HIS 101 Western Civilization to 1500 A.D. (HC) 3 cr

The major ideas, institutions, and developments of Western Civilization from ancient times to the Renaissance. Themes include the nature of humankind; relationship of the individual to society and the universe; the role of religion; the individual in history; the tradition to modern modes of life and thought.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

### HIS 102 Western Civilization Since 1500 A.D. (HC) 3 cr

Analysis of ideas, attitudes, and developments of Western Civilization from the dawn of the modern age to the present. Topics include the scientific and industrial revolutions; the rise and triumph of nation states; the French and Russian revolutions; European imperialism in Asia and Africa; socialism, communism, and fascism; dictatorships and World War II; challenge of the non-Western world. Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

#### HIS 105 History of the American People to 1865 (HC) 3 cr

Economic, social, and cultural development of the American people prior to the Civil War. Utopianism; the Revolutionary Era; the development of national consciousness; consensus and conflicts; constitutionalism; the roots of American foreign policy; race relations; slavery and war. Credit can be granted for HIS 105 or 107 but not for both. Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

#### HIS 106 History of the American People Since 1865 (HC) 3 cr

Reconstruction; industrialism and triumphant capitalism; the capitalist model of society; business and the protestant ethic; labor, populism, and dissent; imperial expansion and the progressive politics; crisis in the American Dream; The Great Depression and the New Deal; minorities and change; the roots of contemporary American foreign policy to Vietnam. Credit can be granted for HIS 106 or 108 but not for both.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

### HIS 107 Valley/American History I (HC) 3 cr

Analysis and examination of major developments - political, social, economic - in American history from Colonial times to the Civil War period with the focus on the local and national levels. Emphasis on local resources. Credit can be granted for HIS 105 or 107 but not for both.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

#### HIS 108 Valley/American History II (HC) 3 cr

Analysis and examination of major developments - political, social, economic - in American history from the latter part of the 19th century to the present with the focus on the local and national levels. Emphasis on local resources. Credit can be granted for HIS 106 or 108 but not for both.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

#### \*HIS 113 China and Japan: A Cultural History (HC) 3 cr

The origins and development of traditional society and culture in China and Japan. Dynastic history in China, and imperial and feudal history in Japan. Emphasis on literary and linguistic development, the formation of political systems and the evolution of cultural life; the complex developments of the 19th and 20th centuries which brought China and Japan into the world community; the critical role played by western contacts in this process; and the emergence of China and Japan as global powers.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

#### \*HIS 123 The Pacific Century (HC) 3 cr

A comprehensive look at the 19th-20th century transformation of the societies of the Pacific basin including those of Southeast Asia, Korea, and the Philippines, as well as China and Japan. The coherent themes through the course include: "progress" and tradition;

collisions between East and West; economic resources and interdependence; democracy, authority, and power; and the United States in the Pacific.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

#### \*HIS 127 History of African-American Peoples (HC) 3 cr

A survey of the African-American experience in the United States, including African heritage, enslavement and slavery, resistance, the Civil War and Reconstruction and their combined legacies of racism and oppression, and the continuing struggles of African-Americans for full and equal rights.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

### \*HIS 128 Latin American History (HC) 3 cr

A survey of Latin American history from first encounters to the present. The course focuses on indigenous, Hispanic and Afro-Latino peoples, including the histories of conquest and colonization, independence and revolutionary movements, political and diplomatic development, economic and social organization, religion, culture, and the environment.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

### \*HIS 129 Introduction to Modern Africa (HC) 3 cr

A survey of geography, climate, and the diverse ethic and cultural groups of the continent. After a brief outline of pre-European civilizations, concentration is on Africa's history from the period of European colonization to the present. Current political, social, and economic conditions are highlighted.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

### \*HIS 131 Women in American History (HC) 3 cr

A survey of women's roles in American history emphasizing the social history of unknown as well as famous women of diverse ethnic and class backgrounds who helped shape life and culture in America from the Colonial period through the Revolutionary era, the Frontier movement, 19th Century political activism and urbanization, and the 20th century through reform movements and the global community.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

### **HONORS**

### HSM 201 Honors Seminar in Behavioral Sciences (BC) 3 cr

In depth exploration of a selected topic of academic interest. The topics are interdisciplinary. The small class size requires considerable student interaction. The seminar maintains a balance between collaborative and independent work. The course includes frequent writing assignments and a major project in the behavioral sciences area. Students may repeat this course one time for a maximum of six credits. Prereq: Earned 3.2 average for 24 college-level credits, including ENG 112, 114, or 116

### HSM 202 Honors Seminar in Humanities (HC) 3 cr

In depth exploration of a selected topic of academic interest. The topics are interdisciplinary. The small class size requires considerable student interaction. The seminar maintains a balance between collaborative and independent work. The course includes frequent writing assignments and a major project in the humanities area. Students may repeat this course one time for a maximum of six credits.

Prereq: Earned 3.2 average for 24 college-level credits, including ENG 112, 114, or 116

# HSM 203 Honors Seminar in Natural Sciences (NC) 3 cr

In depth exploration of a selected topic of academic interest. The topics are interdisciplinary. The small class size requires considerable student interaction. The seminar maintains a balance between collaborative and independent work. The course includes frequent writing assignments and a major project in the natural sciences area. Students may repeat this course one time for a maximum of six credits.

Prereq: Earned 3.2 average for 24 college-level credits, including ENG 112, 114, or 116

### HUMAN DEVELOPMENT

#### HUD 095 Study Skills (D) I cr

Teaches academic success skills, including techniques for effective reading and remembering, increasing class involvement, preparing for tests, taking lecture notes, and managing time. This course may not be used to fulfill associate degree requirements. Course graded credit/no credit.

Prereq: None

# HUD 109 Career Decision-Making and Planning (X) 3 cr

An individualized introduction to the career/life planning process. The course covers seven major steps in decision-making: commitment to planning, self-assessment, generating options, information seeking, choosing, planning, and taking action. The student develops specific career plans. Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090.

# HUD 112 Assertiveness Training (X) 1 cr Skills training in behavior which allows individuals to express their own opinions, feelings, needs, and preferences, without unnecessary anxiety and in a way that is not threatening to others.

#### HUD 113 Job Search Training (X) I cr An introduction to the techniques used in

Prereg: None

effective job search. Specific attention is paid to helping each student to match his/her skills, needs, and values to specific types of jobs. Content emphasizes informational interviewing, resume development, formal job interviewing, and job contract negotiations. Prereq: None

#### HUD 114 College Success (X) 3 cr

Designed to assist incoming students make a successful transition from high school, home, or the workplace to college. Adopts a seminar approach requiring students to use a textbook, listen to lectures, participate in discussions, and complete a variety of written and oral assignments. Adjustment and transition issues—academic, career, and interpersonal—are addressed with a structured, content-based curriculum, flexible enough to promote the exploration and resolution of individual concerns. *Prerea: None* 

#### HUD 117 Managing Stress (X) 2 cr

Designed to transmit basic information about how stress works to help students isolate their own stress responses, and to help them find appropriate stress reduction techniques within a lab setting. Prereq: None

# HUD 120 Issues in Wellness, Fitness, and Health (X) 1 cr

A series of seminars, lectures, and workshops designed to provide current information related to health and lifestyle concerns. Topics/content selected from such areas as fitness, nutrition, wellness, tobacco issues, substance abuse, attitudes, and preventive modalities. *Prereq: None* 

### HUD 121 Applied Leadership Training (X)

Fundamental leadership skills, problem-solving, decision-making techniques, and group process; college governance structure, principles of the planning process and budget preparation. Maximum two graded credits. Prereq: Offered only to GCC Student Senators elected by the GCC student body.

### HUD 125 Issues in Contemporary Society: Substance Abuse (X)

Issues such as substance abuse, racism, sexual harassment, wellness, diversity, family abuse offered to students wishing to explore them via discussions, presentations, lectures, and workshops. Focus issues will be delineated as part of the course title.

Prereq: None (Note: Each semester this course will be offered with a different focus which will be reflected as part of the title.)

#### HUD 160 Mentoring (X) I cr

Designed to train students to be mentors learning how to help new students by providing guidance, counsel, and practical advice in negotiating the college experience. Prereq: At least second semester student

### **HUMAN ECOLOGY**

# \*HEC 101 Human Ecology: Problems and Solutions (BC) 3 cr

An introduction to basic concepts and principles in ecology including ecosystems, population, food production, energy, pollution, technology, and resource depletion. Focus is on people's impact on the natural environment emphasizing current problems and alternative solutions to them.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

### HEC III Human Ecology: the TEME Experience (BL) 3 cr

A student-centered experiential learning community that teaches basic principles of ecology and effective group skills. The course focuses on leadership, goal setting, communication, problem solving, resource management, and issues of global sustainability. Students participate in a (DSV) Deep Submergence Vehicle simulation in the third week of April. Students train to assume roles on board the DSV or as members of the surface support team. DSV crew positions require a weeklong residency on board the vessel and surface support positions require a minimum of 20 hours outside of class time

during the simulation. Successful completion of this course and permission of the instructor allow for entry into HEC 251.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

#### HEC II3 Earth Experiences (BL) 3 cr

An introduction to selected experiential education components of environmental studies and human ecology. A series of group-building problem-solving initiatives and "in-the-field" experiences designed to build group identity, promote self confidence and personal growth, and heighten understanding of applied environmental studies. Students will choose appropriate resident and day field laboratory experiences. Self-directed learning models within environmental studies and an exploration of resources and networks within environmental-oriented careers are introduced.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

# HEC 115 Introduction to Ecological Living (BL) 3 cr

Introduction to the major themes of ecologically sustainable living and "hands-on" experiences in practical application, techniques, and methods. Possible topics include alternative energy and conservation, building community, transportation, food production and preparation, and strategies of recycling and resource utilization. Examination of the ethics, values, and belief systems that affect personal choice and public policy impact on the earth. Special scheduling is necessary to accommodate intensive workshops and off-campus field trips.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

#### \*HEC 121 Gender Issues in Human Ecology (BC) 3 cr

Examination of pre-historical, historical, and present day roles of women and men in relation to their environment. Surveys how gender roles have affected survival in huntergatherer and agrarian societies, earth-centered practices in religion and medicine, and the growth and influence of industrialism and nationalism. Particular attention will be given to understanding gender-linked relationships between population, poverty, and environmental degradation. The importance of new cooperative models for converting to an ecologically sustainable society explored utilizing case studies and role models. Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

#### HEC 150 The 24-Hour Outdoor Personal Growth Experience (X) I cr

A 24-hour back-country experience focused on the expansion of the individual's awareness and sensitivity to his or her relationship with the environment through interpretation and participation in its cyclical rhythms. The course also includes in-class sessions. Course graded credit/no credit. Prerea: None

# HEC 151 Vision Quest and Rites of Passage (X) 1 cr

Investigates vision quest and rites of passage, ancient ceremonies and rituals that are found in most cultural traditions to assist individuals to symbolically and literally pass from one life event to the next. It offers instruction in phases of personal transition, earth experiences for clarity and connection, and guidance in self-generated ceremonies. Opportunities include in-the-field teachings and two nights and three days of residency at a solo site in a backcountry area, and personal reflection through inner guidance. Course graded credit/no credit. Prerea: None

### HEC 152 Sustainable Agriculture: Organic Gardening (X) 1 cr

Provides instruction in a natural gardening program and practical "hands-on" introduction to the basic philosophy, content, and methods of organic gardening and permaculture design. Using a model garden site, participants plan and design a garden, prepare the soil, plant the seeds, and prepare for harvesting and storage. Topics include compost, soil improvement, seed selection, crop rotation, and pest management. Includes in-the-field instruction and an overnight residency. Course graded credit/no credit.

# HEC 153 Ancient Wilderness Living Skills (X) | cr

An introduction to the principles and practices of ancient wilderness living skills that enable people to live closer to the earth and to realize a deeper understanding of their heritage as human beings. Skills include carving and using a bow and drill fire making set, building and sleeping in a shelter made from natural materials, and instruction in crafts like natural baskets, wooden utensils, and natural rope. The course includes backcountry foraging for wild edible foods and materials for crafts, as well as an overnight residency experience. Course graded credit/no credit. Prerea: None

### HEC 154 Earth Education: The Council of All Beings (X) I cr

An experience that enables students to respond to the Earth's ecological deterioration. The Council of All Beings, an internationally recognized program, gives form to students' fears and frustration, as well as guidance for establishing harmony with the planet. The course includes experiential exercises, visualization, mask-making, and personal sharing. The overnight resident experience helps students rediscover their Deep Ecology and their interconnection with all of life. Course graded credit/no credit. Prereq: None

# HEC 155 Introduction to Sustainable Energy: Solar Living (X) 1 cr

An introduction to the basic principles and practical applications of sustainable energy systems for small-scale use in the home, office, and work space. The course introduces the basics of renewable energy and sustainable living technologies. The seminar introduces the operation and maintenance of rechargeable solar equipment, independent living techniques and wind, biomass, hydrogen, and conservation strategies for heating and cooling. Course graded credit/no credit. Prereq: None

# HEC 201 Strategies for a Sustainable Future (BC) 3 cr

Expands on human ecology themes in analyzing historical, cultural, and socio-economic causes of the accelerating deterioration of global ecosystems. Examines global, national, and regional strategies for creating an ecologically sustainable future. Gives special attention to the strategic significance of direct individual actions in both lifestyle choices and democratic social change processes for achieving eco-system sustainability.

Prereq: ANT 104 or BIO 103 or HEC 101 or permission of instructor

#### HEC 251 Small Group Ecology: Project TEME Planning and Development (BL) 3 cr

Training in the use of and application of ecological concepts and principles in the planning and development of the annual Project TEME event schedule. Along with the project directors, students enrolled in HEC 251/252 as Project TEME supervisors form the administrative nucleus of the program. Provides an opportunity for students to participate in an organizational structure - the TEME Earth Guild - whose purpose is to conduct scientific research missions critical to the future of our planet. Based on a computerintegrated experiential approach, course is

designed to increase ecological awareness and individual group leadership skills by focusing on learning about the dynamics of group behavior and adaptation in a controlled environment. Successful completion of this course does not guarantee admission to HEC 252.

Prerea: HEC 111 and permission of instructor

### HEC 252 Small Group Ecology: Project TEME Implementation (BL)

Training in the use of and application of ecological concepts and principles in the planning and development of the annual Project TEME event schedule. Along with the project directors, students enrolled in HEC 251/252 as Project TEME supervisors form the administrative nucleus of the program. Provides an opportunity for students to participate in an organizational structure - the TEME Earth Guild - whose purpose is to conduct scientific research missions critical to the future of our planet. Based on a computerintegrated experiential approach, course is designed to increase ecological awareness and individual group leadership skills by focusing on learning about the dynamics of group behavior and adaptation in a controlled environment. Prereg: HEC 251 and permission of instructor

# HEC 253 Eco-Action Seminar and Field Placement (BL) 3 cr

Provides experiential-based learning that enables the student to apply advanced human ecology principles and practices to selected "real life" environmental problems and practical sustainable living solutions. Through interactive seminars, self-directed learning projects, and supervised internships in area organizations students focus on local issues and answers. Students explore transfer options and career choices in environmental studies and human ecology. Prereq: HEC 101 or permission of instructor

### **HUMAN SERVICES**

#### HSV 101 Introduction to Human Services (BL) 3 cr

A study of the human service field from historical, ecological, economic, political, and social perspectives. This course familiarizes students with the basic skills, strategies, and functions common to the field through readings, discussions, guest lectures, research, field trips, and service learning projects. Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

#### HSV 115 Interpersonal Skills and the Role of Helper in the Human Services Profession (BL) 3 cr

Introduces students to the roles and responsibilities of a helping relationship, and to the interpersonal skills needed to be an effective human services worker. The course includes a skills based component consisting of effective listening and communication, conflict resolution, mediation, and assertiveness. Prereq: ENG 101, 103, 105 (or concurrent enrollment); and PSY 101 (or concurrent enrollment); and HSV 101 (or concurrent enrollment)

### HSV 119 Contemporary Parenting (BL) 3 cr

Explores reasons for having children, the birthing process, and the changes that take place within the family unit with the arrival of a child. Parenting styles and their effects are explored along with the impact of the changing societal values on the American family.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

### \*HSV 121 Introduction to Gerontology (BL) 3 cr

Introduction to the study of aging in contemporary society. Considers the research methods as well as practical applications for dealing with the issues of older adulthood. Topics include physiological, psychological, sociological and cultural aspects of aging, economics of aging, healthcare concerns, ageism, and a survey of career opportunities in human service settings working with older adults.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

#### HSV 141 Chemical Dependency: Understanding Drug Use (BL) 3 cr

An examination of the nature of substance abuse and chemical dependency in society today. Topics studied include: commonly abused substances and their effects, physical symptoms and behavioral signs of substance abuse, stages of dependency, factors which influence chemical dependency, and personal and social influences.

Prereq: PSY 101 or concurrent enrollment

#### HSV 167 Mediation (BL) 3 cr

Mediation is a non-adversarial way of resolving conflicts and reaching agreements. The course covers theories of conflict and conflict styles, how to define issues in mediation, reframing, neutrality and bias, and moving parties to agreement. Students are able to mediate for

the campus mediation service upon successful course completion. Class includes many simulated mediations.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

## HSV 205 Case Management Practices (BL) 3 cr

A survey of case management practices and contemporary human service interventions used in the field of human services. This course teaches case management skills, introduces students to the use and effectiveness of intervention and includes, but is not limited to, crisis intervention, group work, cognitive-behavioral treatment, legal interventions, advocacy and alternative treatments. Prereq: ENG 101, 103, 105 or concurrent enrollment; PSY 101 or concurrent enrollment; HSV 101 or concurrent enrollment

### HSV 215 Counseling Skills (BL) 3 cr

Students move from theoretical understanding of the helping relationship to practical application as they practice interviewing, counseling, and referral processes. Specialized counseling skills such as crisis intervention introduced. Extensive demonstration and role play utilizing audio and video tapes. Students witness clinical supervision as they practice peer supervision. *Prerea: HSV 115* 

# HSV 271 Practicum in Human Services (BL) 4 cr

Provides students with field work in competency training and skill building through directed, closely-supervised involvement in a human service agency. Students practice their acquired skills through professionally supervised individual and/or group focused involvement. In addition to the fieldwork, students meet each week for two hours to discuss practicum experiences.

Prereg: HSV 215 (or concurrent enrollment)

### **HUMANITIES**

### HUM 113 Introduction to the Pioneer Valley (HL) 3 cr

Overview of the geography, geology, history, and culture of the Pioneer Valley, with instruction in methods of research, including oral history and work in libraries, newspaper files, and museums. Field trips in the local area. Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

## \*HUM 119 Women in the Pioneer Valley (HL) 3 cr

Through historical and literary readings and original research, students explore the experience of women of the Pioneer Valley. Letters, diaries, journals, oral histories, fictional works, and other similar sources examined. Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

# HUM 130 Latin American/North American Cultures (HC) 3 cr

An introduction to the cultures and values in Latin American countries and differences among them. Cross-cultural topics include similarities and differences between modern North American and Latin American cultures. This interdisciplinary course explores ways in which cultural values have influenced the history, government, politics, economics and ethics of contemporary Latin American societies

Prereq: ENG 101, ENG 103, or ENG 105 or concurrent enrollment

### \*HUM 150 The Lively Arts (HC) 3 cr

Provides experience in the performing and visual arts through attendance at Fine Arts Center Performing Arts Series concerts of music and dance at the University of Massachusetts and guided visits to university gallery exhibitions of sculpture, photography, and drawings. Guest faculty present weekly lectures about the structure and history of music, dance, and visual arts. Discussion sections help students understand and apply information from weekly assignments, lectures, exhibitions, and concerts. Free tickets provided.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

## HUM 153 Media and Popular Culture (HC) 3 cr

Discussion and critique of photographs, film, and video from the Depression to the present. Analyses of the influences of mass-media images on popular culture. Focus is on developing visual literacy and critical thinking. *Prereq: ENG 101, 103, or 105* 

### HUM 155 Representing Families Through Media (HL) 3 cr

Explores the representational process in diverse genres as it has depicted family life. Students working in various media, including video, photography, dance, and writing, consider varied historical efforts by artists of different traditions seeking to bring together image and text, motion, and sound. Prereq: ENG 101, 103, or 105; Recomm: Students should have previous experience with media, fine or performing arts, or writing

### HUM 201 Humanities in the Western World I (HC) 3 cr

Illustrates the relationships among the literature, music, visual arts, history, and ideas of the Western World, with emphasis on the texts of certain literary classics. Concentrates on the Classical World, the Middle Ages, and the early Renaissance.

Prereq: English Composition II (or concurrently), or permission of instructor

### HUM 202 Humanities in the Western World II (HC) 3 cr

Continuation of HUM 201. Concentrates on the late Renaissance, Baroque, Romantic, and Modern periods.

Prereq: English Composition II (or concurrently), or permission of instructor

### **LATIN**

### LAT 101 Elementary Latin I (HC) 4 cr

Fundamentals of the Latin language. Students learn Latin vocabulary, syntax, and grammar and then translate Latin into polished English and vice-versa. Students use Latin orally and listen to and write Latin as a part of the language learning process.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

### LAT 102 Elementary Latin II (HC) 3 cr

Fundamentals of Latin language. Students continue to learn Latin vocabulary, syntax, and grammar and then translate Latin into polished English and vice-versa. Students read the work of ancient authors in Latin.

Prereq: LAT 101 or equivalent, or permission of the instructor

### LEISURE EDUCATION

All 1-credit LED courses are graded on a credit/no credit basis. All 2- and 3-credit LED courses are graded with letter grades.

# LED 156 Principles of Weight Training (X) 1 cr

Covers the basic training principles involved in the development of muscle strength and endurance. Includes guidelines concerning isometric, isotonic, and isokinetic progressive resistance exercises. The value of muscle strength and endurance as a lifetime physical fitness goal emphasized. *Prerea: None* 

### LED 157 Aerobics (X) I cr

Physical fitness exercises and techniques aimed at the development of the cardiovascular system. Exercises combined to promote flexibility, strength, and cardiorespiratory endurance through systematic approaches. Individual cardiovascular evaluation required and individual programs planned. Prereq: None

### LED 158 Advanced Aerobics (X) 1 cr

Advanced physical fitness exercises and techniques aimed at the development of the cardiovascular system. Introduction of more advanced exercises that promote flexibility, strength, and cardiorespiratory endurance through systematic approaches.

Prereq: LED 157 or permission of instructor and a cardiovascular evaluation

#### LED 161 Golf (X) I cr

Designed for beginners interested in the basic skills of recreational golf. Students advance at their own pace. Topics include golf rules and etiquette. Students participate in field trips. *Prereq: None* 

### LED 167 Introductory Tae Kwon Do I (Karate) (X) I cr

A basic introduction to the Korean martial art of Tae Kwon Do-Moo Duk Kwan as it has evolved from its origins from Tae Kyun in approximately 57 BC. Emphasis is on familiarization with some Korean language, stretching exercises, calisthenics, punching, blocking, and kicking techniques, practical self-defense, hyung patterns of movement and exposure to some of the philosophical underpinnings of Tae Kwon Do. *Prereq: None* 

### LED 168 Introductory Tae Kwon Do II (Karate) (X) I cr

Intermediate level skills and techniques of the Korean martial art of Tae Kwon Do-Moo Duk Kwan as it has evolved from its origins in Tae Kyun in approximately 57 BC. The emphasis is on familiarization with some Korean language, stretching exercises, calisthenics, punching, block, and kicking techniques, practical self-defense, hyung patterns of movement and exposure to some of the philosophical underpinnings of Tae Kwon Do.

Prereq: LED 167 or permission of instructor

### LED 171 Yoga (X) I cr

An introduction to Hatha Yoga practice, including breath control, stretching, toning, and stress reduction. A wide range of classical yoga asanas (postures) are covered, including forward bends, backward bends, standing poses, inverted poses, balancings, and twists. Each session is an invigorating full-body workout. Students gain sufficient practical knowledge to sustain independent yoga practice. Prereg: None

## LED 172 Self-Defense for Women (X) 2 cr

Introduces physical and psychological skills necessary for self-defense. Involves learning the use of various parts of the body as weapons. Examines techniques of awareness necessary for prevention. Through meditation, discussion, and writing exercises, students learn to realize and overcome women's psychological blocks to their own defense.

Prereq: For women only

### LED 183 Ballroom Dancing I (X) I cr

Designed to give physical enjoyment to participants through the performance of the specific rhythms and movements of smooth and Latin dancing and social satisfaction through group participation. The fundamentals of fox trot, waltz, swing, rumba, and tango are taught with an emphasis on dance positions, leading and following, and dance etiquette. *Prereq: None* 

### LED 191 Recreational Dance (X) 1 cr

Designed to provide the opportunity to increase basic dance skills. Introduction to basic rhythms, folk, square, and social dances. Field trips are required. *Prerea: None* 

### MASSAGE THERAPY

The MTC program offers 3 options for program completion, full-time day, part-time day, and evening. Contact the MTC program for required course sequence.

# MTC 101 Structure and Process of the Therapeutic Healing Relationship (X) 3 cr

Addresses the fundamental components of the therapeutic massage relationship. The course introduces the ethical guidelines of the massage profession that create a standard of practice to support a professional skill base for clinical course work and on-going professional development. Topics include dual relationships, boundaries, medical/legal issues, diversity/bias issues, and power differential.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090 and MAT 090; MTC participants only

### MTC 102 Myology I for Massage and Bodywork (X) I cr

Examines the musculoskeletal anatomy of the human body. Students identify details of skeletal structures and the origins, insertions, and actions of the superficial and intermediate layers of muscles. Lectures and experiential exercises in palpation and clay modeling of

muscles using the Zahoureek Maniken System help students to establish a foundation for skilled and anatomically accurate touch.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090 and MAT 090; MTC participants only

# MTC 103 Massage Therapy Theory and Technique I (X) 6 cr

Teaches fundamentals of classical circulatory Swedish massage; indications and contraindications of treatment; professional hygiene, standard precautions, and self-care protocols; conscious touch and centering skills. The course includes beginning evaluation skills for assessing soft tissue, reviews musculoskeletal systems, emphasizes application of biomechanical skills, applies documentation skills in weekly practice sessions, and tracks development of feedback and professional interactive client skills. Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090 and MAT 090; MTC participants only

### MTC 107 Myology II: Clinical Assessment Testing for Massage & Bodywork (X) 2 cr

Examines specific deep muscles of the body and presents clinical approaches to evaluate common joint and myological dysfunctions. Students observe and identify postural, muscular, and joint imbalance through practical application of clinical assessment techniques during lab teamwork.

Prereq. Placement beyond or satisfactory completion of COL 090 and ENG 090 and MAT 090; MTC participants only

# MTC II0 Kinesiology I:The Art of Functional Movement (X) I cr

Designed to create the safe, effective body mechanics required by the massage therapy practitioner. Students develop sensory/kinesthetic awareness and skillful, efficient movement using movement lessons and supervised table practice. Improved movement function allows students to manifest the skills necessary for sensitive application of massage strokes and pressure, intelligent touch, tissue listening, and optimal application of massage strokes and pressure. Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090 and MAT 090; MTC participants only

# MTC III Documentation for Massage & Bodywork Practice (X) I cr

Provides students with the writing skills necessary for accurate and professional record keeping of therapeutic sessions. The course covers interview and intake procedures, use of health history forms, and standard medical documentation.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090 and MAT 090; MTC participants only

# MTC 112 Massage Therapy Clinic (X) 2 cr

Prepares students to apply critical reasoning and assessment of client intake in order to provide supervised client-centered massage therapy sessions for the public. Direct supervision creates a forum for feedback and analysis of student work. Students gain proficiency in integrating theoretical, technical, and professional components of practitioner training.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090 and MAT 090; MTC participants only

# MTC II3 Massage Therapy Theory and Technique II (X) 7 cr

Broadens and deepens the student's theoretical knowledge, assessment, and technical massage skills beyond circulatory/wellness massage. Students identify soft tissue dysfunctions created by muscular and connective tissue, skeletal, and joint compensation patterns. Adaptive massage techniques include connective tissue, joint receptor, neuromuscular, and passive movement manipulations and applications of hydrotherapy. Advanced palpation skills teach students to apply critical thinking to assess tissue in order to increase functional outcomes. Students integrate these adaptive techniques into a creative massage using therapeutic principles and clinical reasoning. Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090 and MAT 090; MTC participants only

# MTC 114 Interpersonal Dynamics of the Therapeutic Massage Relationship (X) 3 cr

Focuses on the transition from theoretical understanding of the therapeutic massage relationship to practical applications in massage practice. Students use case scenarios from current clinic, service learning, and practice clients to reflect on components of the therapeutic relationship. Students examine the

use of supervision, consultation, self assessment, and focus groups for professional development.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090 and MAT 090; MTC participants only

# MTC 115 The Business and Marketing of Massage & Bodywork (X) 2 cr

Examines the various business models of massage therapy practice including independent contractor, private practice, and employee and the skills and attitudes needed to successfully support each model. Students clarify professional goals for income and marketing and develop individual business plans.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090 and MAT 090; MTC participants only

### MTC 116 Clinical Assessment Practicum Seminar (X) 3 cr

Uses seminar discussion, supervision groups, and lab work to incorporate all aspects of learning the science and art of massage therapy. Students integrate scientific understanding of the skeletal and soft tissue function and dysfunction with appropriate applications of technical and evaluative skills. The course presents typical clinical syndromes in a supervised practical lab to develop the student's use of critical thinking and analysis. Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090 and MAT 090; MTC participants only

## MTC 120 Kinesiology II: The Science of Functional Movement (X) 2 cr

Explores the art and science of human movement through interwoven didactic and experiential learning. Students study the muscular-skeletal system from the perspective of dynamic alignment, improved motor performance, and efficient body mechanics. The course includes movement/skilled touch lab.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090 and MAT 090; MTC participants only

### **MATHEMATICS**

### MAT 090 Basic Mathematics Skills (D) 3 cr

Useful as a foundation for math and mathrelated courses, for developing quantitative job skills, or as a refresher. Students use a variety of materials and problem-solving techniques to deepen their understanding of basic arithmetic operations, fractions, decimals, percents, and measurement. They analyze problems and arrive at solutions using the techniques of mathematical reasoning. The course emphasizes mathematical discovery and addresses issues of math anxiety, test-taking difficulties, and study skills for math. This course may not be used to fulfill associate degree credit requirements; final grade of "D" will not be awarded in this course. Prereq: None

# MAT 094 Preparatory Course for Algebra (D) 3 cr

A preparatory course for Introductory Algebra (MAT 095) for students with a working knowledge of arithmetic who have never had algebra before or who would benefit from a slower introduction to algebra. Students study many of the topics covered in Introductory Algebra but at a significantly more elementary level and at a slower pace. These topics include the concept of a variable, negative numbers, numeric and algebraic expressions, linear equations in one variable, positive exponents and square roots, and an introduction to graphing of equations in two variables. Students work with applications to help them understand and connect algebraic concepts to real world situations. This course may not be used to fulfill associate degree credit requirements. Final grade of "D" will not be awarded in this course. Prereq: MAT 090 or placement by examination

### MAT 095 Introductory Algebra (D) 3 cr

An introductory algebra course which assumes a working knowledge of basic arithmetic. Students study topics that include the concept of a variable, negative numbers, properties of real numbers, numeric and algebraic expressions, polynomials, linear equations and inequalities in one variable, integer exponents and coordinate geometry. The course introduces graphing of two-variable equations. Students work with applications to help them understand and connect algebraic concepts to real world situations. This course may not be used to fulfill associate degree credit requirements; final grade of "D" will not be awarded in this course.

Prereq: MAT 090 or placement by examination

### MAT 096 Intermediate Algebra (D) 3 cr

Develops algebra skills and a conceptual understanding of topics, and focuses on the relationship between algebraic, graphical and numerical approaches to solving problems. Students study topics that include linear equations and systems of equations, methods for solving problems, radicals and radical equations, quadratic equations and the quadratic formula, rational exponents and rational expressions. The course places emphasis on graphing in the Cartesian coordinate system with particular stress on graphing linear equations and systems of equations. Students work at times with calculators and/or computers. This course may not be used to fulfill associate degree credit requirements; final grade of "D" will not be awarded in this course.

#### Prereq: MAT 095 or placement by examination

### MAT 099 Elementary and Intermediate Algebra (D) 6 cr

An intensive elementary and intermediate algebra course that assumes a working knowledge of basic arithmetic and some familiarity with algebraic principles. Students study topics that include the concept of a variable, negative numbers, properties of real numbers, numeric and algebraic expressions, polynomials, and integer and rational exponents. In addition, students study topics that include linear equations and systems of equations, graphing in the Cartesian coordinate system, methods for solving problems, rational expressions, radicals and radical equations, quadratic equations and the quadratic formula. Students work with applications to help them understand and connect algebraic concepts to real world situations. Students focus on the relationship between algebraic, graphical and numerical approaches to solving problems. Students work at times with calculators and/or computers. This course may not be used to fulfill associate degree credit requirements; final grade of "D" will not be awarded in this

Prereq: Placement by examination (students must pass the arithmetic placement test (MLIP) and score 36 or higher on the algebra placement test) or permission of the instructor

#### MAT 107 College Algebra (NC) 4 cr

The study of functions. This course is a gateway to the study of higher level mathematics and a useful preparation for courses with quantitative content. Students investigate the principles, properties, and applications of several common types of functions from numerical, algebraic, and graphical perspectives and use these functions to model real world problems. Principle types

### Credit Courses

include polynomial, rational, composite and inverse functions. The course also introduces exponential and logarithmic functions and briefly examines absolute value, root, step, and piecewise functions. Students use graphing calculators extensively.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090; MAT 096 or placement by examination

#### MAT 108 Precalculus (NC) 4 cr

A preparation for MAT 201 and the physical sciences. Students study principles, properties, and applications of functions and their graphs. They revisit functions introduced in MAT 107 and expand their knowledge of them. The course focuses heavily on circular trigonometric functions and introduces conic sections. Laboratory activities place particular emphasis on the use of functions to model real problems. Computers and/or graphing calculators are used to enhance the study of mathematics.

Prereq: MAT 107 or placement by examination

### MAT 114 Introduction to Statistics (NC) 4 cr

An introduction to statistics that teaches broadly relevant concepts. Topics include but are not limited to graphical and numerical methods for summarizing data; linear regression and correlation; normal probability distributions; confidence intervals; statistical inference and hypothesis testing. Laboratory activities emphasize the analysis of real world data. Computers and/or graphing calculators are used to enhance the study of mathematics. Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090; MAT 096 or placement by examination

# MAT 117 Mathematical Problem Solving (NC) 3 cr

Designed to provide students in the liberal arts with a foundation to mathematical reasoning and quantitative skills in decision-making processes. Students focus on ideas rather than techniques as they implement problem solving strategies. The course introduces students to topics that might include, but are not limited to mathematical modeling, graph theory, the mathematics of social choice, growth and symmetry, descriptive statistics, and probability. Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090; MAT 095 or placement by examination

## MAT 142 Mathematical Modeling (NL) 3 cr

An intensive experience in Mathematical models. Students, working in teams, construct solutions to open-ended, challenging problems from a wide variety of situations. Teams apply

problem solving techniques such as brainstorming, analytical solutions, simulations, and approximations. Students focus on written documentation of both their process and solution. Students take the course during January intersession on a credit/no credit basis and receive credit for the course after they complete a weekend long experience that the Consortium for Undergraduate Mathematics Applications sponsors each February. Prereq: MAT 151 or MAT 201 or permission of the instructor or math department chair.

#### MAT 151 Applied Calculus I (NC) 4 cr

Provides a practical approach to the basic tools and methods of calculus. Topics include a review of polynomial, rational, exponential, and logarithmic functions and their graphs, limits, the derivative, and the integral. Students work with models and applications from many fields. Students utilize computer software and/or graphing calculators to enhance their understanding of mathematical concepts. Prereg: MAT 107 or placement by examination

### MAT 152 Applied Calculus II (NC) 3 cr

Provides a practical approach to the basic tools and methods of integral calculus. Students delve more deeply into the applications of calculus with a particular emphasis on integration and differential equations. Students utilize computer software and/or graphing calculators to enhance their understanding of mathematical concepts. Prerea: MAT 151

### MAT 201 Calculus with Analytic Geometry I (NC) 4 cr

Theoretical and applied calculus for students interested in mathematics, engineering, and the physical sciences. The course assumes an understanding of polynomial, rational, exponential, and trigonometric functions. Students probe the concepts of limits, continuity, differentiation, and integration using numerical, graphical, and symbolical approaches. The course includes a thorough study of the derivative, differentiation techniques, and applications of the derivative, as well as the concepts of antidifferentiation, the definite integral, and the Fundamental Theorems of Calculus. Students use computer software and/or graphing calculators in and out of class to apply and enhance their understanding of calculus concepts. Prereq: MAT 108 or placement by examination

### MAT 202 Calculus with Analytic Geometry II (NC) 4 cr

A second semester theoretical and applied calculus course for students interested in mathematics, engineering, and the physical sciences. Students should have a conceptual understanding of differentiation and integration and a working knowledge of derivatives of a wide

range of functions (including trigonometric and exponential). Students examine antiderivatives and definite integrals numerically, graphically, and algebraically and work with a wide range of applications. They study and model real-world situations with differential equations and use infinite series for approximation of functions. Students use computer software and graphing calculators in and out of class to apply and enhance the understanding of calculus concepts. Prereg: MAT 201

### MAT 203 Multivariate Calculus (NC) 4 cr

Theoretical and applied multivariate calculus for students interested in mathematics, engineering, and the physical sciences. The course assumes an understanding of single variable calculus. Topics include vectors, the dot and cross products, multiple representations of functions of several variables, the gradient and directional derivatives, first and second order partial derivatives with applications including Lagrange multipliers, iterated integrals, parameterization, vector fields, line integrals, and Green's Theorem. Students use computer software and/or graphing calculators in and out of class to apply and enhance their understanding of calculus concepts.

# MAT 204 Elementary Differential Equations (NC) 4 cr

An introduction to ordinary differential equations with a dual focus on finding analytic solutions and on solving and understanding differential equations using numeric and qualitative approaches. Topics include separation of variables, methods of undetermined coefficients, integrating factor method, Euler's method, phase planes, first order linear systems, second order differential equations, an introduction to nonlinear systems, and LaPlace transforms. Throughout the course, students use and formulate differential equations that model real-world situations. Students use computer software and/or graphing calculators in and out of class to apply and enhance their understanding of differential equations and their solutions.

Prereq: MAT 203 or permission of instructor

# MAT 205 Elementary Linear Algebra (NC) 4 cr

The study of matrices and vector spaces. Topics include the algebra of matrices, systems of linear equations, determinants, subspaces, linear independence, bases, linear transformations and their matrix representations, eigenvalues, eigenvectors, orthogonality, and applications to linear systems. Students gain significant computational experience with the use of computer software and/or calculators with linear algebra capabilities.

Prereq: MAT 202 or permission of instructor

### **MUSIC**

## MUS 101 An Introduction to Music (HC) 3 cr

A survey of musical styles from the Baroque era into the 20th century. Musical forms, elements of music, the orchestra, and great composers are discussed in conjunction with critical listening of recorded examples and live performances.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

### MUS 102 Jazz Eras and Styles (HC) 3 cr

A survey of the evolution of jazz both from an historical and stylistic perspective. The styles illustrated include the origins of jazz from slave songs, marching band, and ragtime through New Orleans, Swing, and Modern Jazz, including the Avant-garde and Rock eras. The teaching methods focus on developing a discerning ear to better understand the different jazz eras and the unique characteristics of each jazz style.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

## MUS 103 Music Theory Fundamentals (HC) 3 cr

Introductory music theory for students with little or no musical background. The course covers reading and writing notation, scales, melodic composition, and other elementary theoretical concepts.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

#### MUS 107 Music Theory I (HC) 3 cr

Basic chordal structures, voice leading, inversions, figured bass, harmonic progressions, and non-harmonic tones. Harmonic analysis of great composers' works. Keyboard harmony and ear training.

Prereq: MUS 103 or permission of instructor

### MUS 108 Music Theory II (HC) 3 cr

Dominant seventh and extended chords in root position and inversions. Modulation to closely related keys. Harmonic analysis of great composers' works. Keyboard harmony and ear training.

Prereq: MUS 107 or permission of instructor

### MUS III Chorus (HL) 2 cr

An exploration of vocal technique and choral repertoire. Students prepare selections from the various style periods for public performance. The course is open to all students. Students may repeat this course three times for a maximum of 8 credits. *Prereq: None* 

# MUS 122 Jazz Theory: Tools for Improvisation (HC) 3 cr

An overview of the practical fundamentals of jazz theory for the beginning improviser. Students investigate chords, scales, and song forms common to the jazz idiom. Students listen and analyze recorded examples of jazz masters such as Miles Davis, John Coltrane, and others in order to enhance the student theory work and improvisation. Prereq: Completion of MUS 103 or permission of instructor. Recomm: Concurrent enrollment with MUS 125 Jazz Ensemble

#### MUS 125 Jazz Ensemble (HL) 2 cr

Allows students to rehearse and perform in a variety of jazz styles including "Blues," "Swing," "Bebop," and "Latin." The course stresses improvisational skills as well as ensemble expertise. Two informal presentations and a final "Gala" concert conclude the course. Prereq: Permission of instructor

### MUS 127 20th Century American Popular Music (HC) 3 cr

A cultural overview of popular music in 20th century American society with emphasis on rock, folk, pop, and world fusion styles. The course examines how music technology, commercialism, and cultural diversity have influenced the development of musical styles and practices unique to American life. Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

# MUS 128 World Music Ensemble (HL) 2 cr

A performing ensemble devoted to non-Western musical traditions and practices. The course emphasizes different traditions and instrumentation according to faculty interests and student enrollment each semester. Areas of concentration may include African, South American, Asian, Caribbean, Latin American, and North American influenced combinations of traditional and popular styles. Players of all instruments are welcome to join. Frequently the class requires no previous musical experience, such as semesters when African hand-drumming is the emphasis. The ensemble performs publicly twice each semester. Prereq: Permission of instructor or program coordinator

### MUS 129 Chamber Ensemble (HL) 2 cr

An instrumental music ensemble performing western European classical repertory for small groups. The class features works from various periods, composed or adapted for trios, quartets, and other small groups of varied

instrumentation. No prior ensemble experience is required. The ensemble performs publicly twice each semester.

Prereq: Permission of instructor or Program

Coordinator; basic music reading ability; basic proficiency on an instrument

### \*MUS 137 World Music and Cultures (HC) 3 cr

A survey of music and culture including Native North America, Latin America, Black America, West and South Africa, the Mideast, India, Japan, and Eastern Europe. The course emphasizes strategies for understanding and listening to all kinds of music. Students do local cultural fieldwork projects and have the opportunity to produce field recordings as part of their final research project. Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

### MUS 138 Creative Musicianship (HL)

An examination of a broad range of topics related to serious music study. The instructor leads cooperative class investigation into areas such as creative expression through free improvisation, preparing for auditions and performances, breaking creative blocks, responding to performance anxiety, adopting stretches/exercises, exploring career paths, making demos, and booking gigs. Students may repeat this course once for a maximum of 2 credits

Prereq: Concurrent enrollment in 2 credit Applied Music Lessons. Non-music majors need permission of instructor

# MUS 139 Contemporary Music Ensemble (HL) 2 cr

An ensemble that performs modern musical styles of rock, pop, folk-rock, and rhythm and blues. In addition, the ensemble creates original works and explores post-1945 avant-garde musical styles that have influenced popular music since the 1960s. Students should expect to practice and develop skills for reading music and playing by ear. The ensemble performs publicly twice each semester. Students may repeat this course three times for a maximum of 8 credits.

Prereq: Permission of instructor or Program Coordinator; basic instrumental or vocal proficiency; the ability to read and play chord changes

#### MUS 147 Aural Skills I (HL) I cr

A practice lab in which students develop music listening and reading skills. This course emphasizes practical applications including ear training, sight singing, transcription, dictation, and conducting.

Prereq: MUS 103 or permission of instructor; concurrent enrollment in MUS 107

### MUS 148 Aural Skills II (HL) I cr A continuation of MUS 147, Aural Skills I.

A continuation of MUS 147, Aural Skills I Prereq: MUS 147 or permission of instructor; concurrent enrollment in MUS 108

#### MUS 207 Music Theory III (HC) 3 cr

An in-depth examination of musical structures to further develop skills for written exercises, four-part harmonic analysis, and basic keyboard harmony skills (scales and cadences). The course includes computer-lab time using software for music writing.

Prereq: MUS 107, MUS 108 or permission of instructor

### MUS 208 Jazz Improvisation (HL) 3 cr

A beginning level course open to all instrumentalists and vocalists. This course serves as a stepping stone to the GCC Jazz Ensemble or other intermediate jazz groups. The class combines theoretical study and applied practice as means to explore harmony, rhythm, modes, scales, and the subtleties of musical conversation. One or two small jazz combos develop from within the class and provide the context for group practice. Prereq: MUS 103 or permission of instructor; basic music reading skills; basic instrumental proficiency

## MUS 219 MIDI Studio Techniques (HL) 3 cr

An introduction to basic features of MIDI keyboards integrated with computer music software. The course emphasizes learning to navigate and work productively with widely used professional level notation, composition, and music education software programs. The college provides all necessary equipment. Prereq: MUS 103 or permission of instructor or Program Coordinator

#### MUS 220 Songwriting (HC) 3 cr

A practical exploration of techniques for writing songs in various classic genres including the music of George Gershwin, Chuck Berry, the Beatles, Bob Dylan, Joni Mitchell, Ani DiFranco, and others. The course ties together aspects of music theory, music history, improvisation, collaboration, composition, and performance. The course also covers songwriting industry topics such as recording production and copyright law. Prereq: MUS 103 or permission of instructor or Program Coordinator; basic proficiency in chordal accompaniment on guitar or piano

#### MUS 247 Aural Skills III (HL) I cr A continuation of MUS 148, Aural Skills II. Prener MLIS 148 or permission of instructor.

Prereq: MUS 148 or permission of instructor; concurrent enrollment in MUS 207

### APPLIED MUSIC

Individual instruction on a wide variety of western instruments, as well as some non-western instruments. Individual instruction is also available for music technology and computers (i.e. midi/computer notation), but not as a primary instrument for music majors. These are college level, letter-graded courses that require student commitment to study and practice.

MUS 130 is a 1 credit course in which students and instructors meet for one-half hour per week. MUS 230 is a 2 credit course in which students and instructors meet for one hour per week.

The music department assigns instructors to students prior to or during the first week of each semester. Students intending to take lessons should contact the music program coordinator at (413) 775-1228 prior to or not later than the first week of classes each semester. A studio instructor fee is charged for lessons and is non-refundable after the college deadline. Lesson fees are covered by financial aid like any other course fees. Students interested in music and technology may consider attending periodic music keyboard/computer tutoring sessions in the MAC lab. The music department also offeres a variety of workshops and master classes on a regular basis.

Questions regarding music faculty and lessons should be addressed to the GCC Music Department Coordinator at (413) 775-1228. Questions regarding registration, payment or refund of fees, or course withdrawal should be addressed to the Registrar's Office at Student Services, (413) 775-1808

#### MUS 130 Applied Music (HL) I cr

Individual music lessons open to all students of any level or interest. Lessons meet for one-half hour per week. Students and instructors arrange regular meeting times on an individual basis. There is a charge for a studio instructor fee in addition to tuition. Students may repeat this course without limit. *Prereq: None* 

#### MUS 230 Applied Music (HL) 2 cr

Individual music lessons open to all students of any level or interest. Lessons meet for one hour per week. Students and instructors arrange regular meeting times on an individual basis. Music majors must take MUS 230 on a primary instrument for four semesters. There is a charge for a studio instructor fee in addition to tuition. Students may repeat this course without limit. *Prereq: None* 

### MUS 231 Recital Participation (HL) 0 cr

Fulfills one-fourth of recital attendance and performance requirement for music majors. Students must attend and perform in student recital events scheduled for the end of the semester. With direction from applied music instructors and the Music Program Coordinator, students are expected to prepare and perform one or more musical pieces in solo, duo, or group settings. Students may repeat this course without limit.

Prerece: Non-music majors need represent in MUS.

Prereq: Non-music majors need permission of Music Program Coordinator; concurrent enrollment in MUS 230 for music majors

### NURSING

### NUR 101 Fundamentals of Nursing (X) 8 cr

Designed to provide a foundation for nursing practice. Students are introduced to the concepts of health, illness, and adaptation. The nursing process is presented as a foundation for nursing practice. Emphasis on assessing the individual's ability to adapt to stressors and on the basic skills needed to assist students in this process.

Prereq: CHE 105 or 111 or one year of high school chemistry (within 7 years); MAT 096 or equivalent; ENG 101, 103, or 105 or concurrent enrollment; PSY 101 or concurrent enrollment enrollment

### NUR 103 Fundamentals of Practical Nursing (X) 11 cr

Provides the basic principles of nursing care in classroom, laboratory, and clinical settings. Emphasis is on meeting basic needs of clients and families. The course introduces principles of anatomy and physiology, microbiology, nutrition, pharmacology, and the nursing process. Vocational trends, including legal and ethical issues, are introduced.

Prereq: PNC majors only. BIO 117 and PSY 101 or concurrent enrollment

# NUR 105 Practical Nursing Practicum (X) 2 cr

Provides direct application through intensive clinical practice of all the principles learned in NUR 103, BIO 117, and PSY 101. Technical, organizational, and communication skills are emphasized.

Prereq: PNC majors only with NUR 103, BIO 117, and PSY 101

### NUR 106 Pediatric Nursing (X) 4 cr

Introduces students to the uniqueness of pediatrics within our changing society. This course promotes adaptation in the situations of health and illness as it relates to the nursing care of children. This course focuses on the

care of the child through integration of theoretical principles and clinical experiences. Pediatric Nursing emphasizes the ability to recognize normal growth and development and to identify deviations within the acute and community setting. The course introduces and examines ethical issues central to pediatrics. Prereq: NUR 101; BIO 195; English 101, 103 or 105; and PSY 101. BIO 196, SOC 101, and PSY 217; or concurrent enrollment. Recomm: Concurrent registration in NUR 108

# NUR 107 Nursing Care of Clients and Families (X) 14 cr

Prepares students to assist clients and families in coping and adapting to common illnesses. Integration of principles from sciences, nutrition, pharmacology, nursing, and human growth and development is emphasized. Vocational trends, including entry into practice issues are presented.

Prereq: NUR 105; PSY 217 or concurrent enrollment

### NUR 108 Obstetric Nursing (X) 4 cr

Focuses on the theory of obstetrical nursing and its application in nursing care during pregnancy and throughout the process of labor, birth, postpartum, and the care of the neonate. The course emphasis is on integration of theoretical principle and clinical experience using the nursing process to assess, plan, intervene, and evaluate the care of the family, mother and newborn. This course recognizes birth as a natural physiologic process of the human experience and defines the nurse's role in it. Students address the identification of problems and conditions that complicate this process, along with the identification of nurse's role and more complex nursing care. The students analyze clinical cases and ethical issues related to maternal-child care. The course presents an overview of basic women's health issues related to reproduction. Prereq: NUR 101; BIO 195; English 101, 103 or 105: and PSY 101, BIO 196, SOC 101, and PSY 217; or concurrent enrollment. Recomm: Concurrent registration in NUR 106

### NUR 109 Advanced Concepts in Practical Nursing (X) 5 cr

Prepares students to assist clients and families in coping and adapting to multi-system illness by recognition of alterations in health status. Emphasis is on integration and application of all previous content in this final course of the curriculum. Current vocational trends and leadership skills are included. *Prereg: NUR 107* 

### NUR III Introduction to Nursing Process (X) I cr

Introduces the Roy adaptation theory of nursing and the nursing process as a foundation for professional nursing practice, and provides licensed practical nurses with the opportunity to assess and diagnose patients' physiological and psycho-social status using functional health patterns. Graded on credit/no credit basis. Successful completion of NUR 111 results in the award of 8 credits by examination for NUR 101.

Prereq: Advanced placement into the ADN Nursing Program with successful score in Excelsior College Fundamentals of Nursing Associate Degree Level Examination.

# NUR 112 Introduction to Nursing Process and Basic Concepts (X) 2 cr

Introduces the Roy adaptation theory of nursing and the nursing process as a foundation for professional nursing practice, and provides licensed practical nurses with the opportunity to assess and diagnose patients' physiological and psycho-social status using functional health patterns. The course includes content on nursing ethics, physical assessment, and teaching/learning. Graded on credit/no credit basis. Successful completion of NUR 112 results in the award of 16 credits by examination for NUR 101 and NUR 102. Prereq: Advanced placement into the ADN Nursing Program. Articulation agreement with GCC's PNC or Thompson Schools LPN program or successful score in Excelsior College Fundamentals of Nursing Associate Degree Level Examination and Excelsion College Maternal and Child Nursing, Baccalaureate Degree Examination.

# NUR 120H Native American Cultural Experience for Nurses (X) 3 cr

Immerses the student in Navaho culture and traditions related to health and healing practices. Using the concepts of nursing process and adaptation, the student integrates traditional beliefs and customs with those of western biomedicine and nursing. During a three week clinical experience, the student provides direct patient care at an Indian Health Service Hospital on the Navaho reservation.

Prereq: NUR 101 or equivalent, 3.20 GPA or current R.N. licensure

### NUR 121 Native American Cultural Experience for Registered Nurses (X) 1 cr

Immerses the registered nurse (RN) in Navaho culture and traditions related to health and healing practices. Using the concepts of nursing process and adaptation, the RN integrates traditional beliefs and customs with those of western biomedicine and nursing. During a one week clinical

experience the RN provides direct patient care at an Indian Health Service Hospital on the Navaho reservation.

Prereq: Current RN licensure (US), malpractice insurance

### NUR 201 Adaptation to Illness: Medical-Surgical Nursing I (X) 8 cr

Designed to provide correlation between nursing theory and clinical practice. Emphasis is on assessment of the level of adaptation and the nursing process. Individual needs of patients located at some point on the health-illness continuum form a basis for the integration of pharmacology, nutrition, diet therapy, and interpersonal relationships into a developing framework of knowledge. Prereq: NUR 101 and 102; BIO 106 or BIO 196; BIO 205 or concurrent enrollment

### NUR 202 Adaptation to Illness: Medical-Surgical Nursing II (X) 9 cr

A continuation of NUR 201. Additional depth and breadth is provided, focusing on pathophysiology. Emphasis is on the mechanisms of adaptation and the use of the nursing process. Concepts of rehabilitation, the teaching/learning process, family and community psychodynamics, and nursing leadership are presented to provide a more comprehensive view of the nursing process and the ability to promote patient adaptation. Prereq: NUR 201, NUR 203; BIO 205; ENG 112, 114, or 116 or concurrent enrollment; HUM elective or concurrent enrollment

#### NUR 203 Mental Health Nursing (X) 4 cr

Focuses on mental health nursing principles in the formulation of a therapeutic approach to patient care. People are viewed holistically as complex organisms in constant interaction with physiological and psycho-social stressors. The nurse is viewed as a facilitator of adaptation, using the nursing process to establish a plan of care based on an understanding of the individual, family, and society.

Prereq: NUR 101 and 102; BIO 106 or BIO 196; BIO 205 or concurrent enrollment

# NUR 204 Trends and Issues in Nursing (X) 3 cr

Focuses on the political, social, economic, and legal issues that influence the nursing profession and the delivery of health services throughout the community. The course addresses the history of nursing, professional organizations, educational and employment opportunities in nursing. Students will develop an understanding of health care economics, community-based delivery systems, and management skills.

Prereq: NUR 203; Coreq: NUR 202 or permission of instructor

### OCCUPATIONAL TECHNOLOGY

### OCC 101 Vocational-Technical Teacher Competency (X) 18 cr

Awards credit for the expertise resulting from a minimum of three years of training and work in the occupational trades. Credits for the course are granted to applicants to the program upon passage of the Massachusetts Vocational-Technical Teacher Competency Test. Prereq: Application to the Occupational Technology Program

### OCC 102 Occupational Technology Teaching and Business Experience (X) 1-6 cr

Grants life experience credit for teaching and/or business activities in the occupational trades according to the following guidelines. Two (2) credits per year will be granted for each year of successful full-time teaching under contract at an accredited vocational/technical high school. Up to three (3) credits may be granted for business experience (private, public, or non-profit) including experience in management, employee relations, and/or government regulations, taxes, and requirements. The total for these life experiences shall not exceed six (6) credits. To be granted these credits, applicants must submit a portfolio including proof of employment, performance reviews, letters of administrative support, and a narrative describing the applicant's business experience that will be reviewed by the program advisor, the Division Dean, and the admission office. Prereq: Application to the Occupational Technology Program

### OUTDOOR LEADERSHIP

### OLP III Introduction to Outdoor Adventure Skills I (X) 4 cr

Develops technical skills in four adventure program areas: backcountry travel, paddling, rock climbing, and challenge course programming. The infield sessions include participation, conceptualization, and application of the skills content. Students receive individualized feedback on skill development. Students participate in local and extended field trips.

Prereq: OLP participants only; placement beyond or satisfactory completion of COL 090 and ENG 090; Wilderness First Responder certification

# OLP II2 Group Management for Outdoor Leaders I (X) 2 cr

Provides an introduction to group and interpersonal relations models and techniques necessary for effective leadership and functional group dynamics in outdoor settings. Enhance student understanding of basic concepts and improve competencies through the use of the learning community as a laboratory group.

Prereq: OLP participants only, placement beyond or satisfactory completion of COL 090 and ENG 090; Wilderness First Responder certification

# OLP 116 Adventure Program Planning & Fieldwork 1 (X) 3 cr

Focuses on the principles and methods of program development in the adventure recreation field. The process oriented course addresses planning, organizing, conducting, and evaluating functions in outdoor adventure programs. The basic preparation allows students to complete supervised fieldwork in a variety of settings with a variety of populations. Students participate in field trips. Prereq: OLP participants only; placement beyond or satisfactory completion of COL 090 and ENG 090; Wilderness First Responder certification

### OLP 120 Wilderness Emergency Preparedness (X) 3 cr

Develops a student's knowledge of and skills in wilderness medical responses, rescue, and evacuation with an emphasis on backcountry techniques. It continues to build upon Wilderness First Responder skills through core skill reviews and field simulations. Additional field presentations and simulations develop an understanding of emergency responses for land and water-based outdoor adventure activities.

Prereq: OLP participants only; placement beyond or satisfactory completion of COL 090 and ENG 090; Wilderness First Responder certification

### OLP 124 Natural History for Outdoor Leaders (X) 2 cr

Provides an introduction to environmental studies with an emphasis on basic concepts useful to an outdoor leader. Field studies address the climate, life zones, and natural resources of the Northeast. Students explore conservation of resources and learn how to present basic natural history concepts to diverse populations. Students participate in field trips.

Prereq: OLP participants only, placement beyond or satisfactory completion of COL 090 and ENG 090; Wilderness First Responder certification

### OLP 127 Outdoor Adventure Skills II (X)

Continues the development of core technical skills required in the outdoor adventure field. Students refine their backcountry travel skills and learn how to apply them in cold-weather environments. Skills areas include backcountry navigation, snowshoeing, winter mountaineering, and first aid. Students also participate in activities which address natural history and cultural history interpretation. Students must demonstrate specific competencies in core areas to obtain leadership ratings. Students participate in field trips.

Prereq: OLP participants only; successful completion of OLP III

### OLP 140 Rock Climbing Instructor (X) 2 cr

Develops student's proficiency with the leadership and implementation of institutional top rope rock climbing. Students learn advanced skills of multi-pitch lead climbing. The infield sessions include selection of equipment, safety systems, site management/evaluation, leadership/learning styles, curriculum development, and basic rock rescue. Students must demonstrate specific competencies to obtain leadership ratings. Prereq: OLP participants only; successful completion of OLP 111 and OLP 120

### OLP 141 Paddling Instructor (X) 2 cr

Builds upon the students' flatwater and whitewater paddling and introduces students to kayak touring and instruction. The course promotes an understanding of introductory paddling lessons so students can develop their own paddling programs. The course emphasizes the development of personal technical skills, technical knowledge, instructional, and leadership abilities. Students must demonstrate specific competencies for an American Canoe Association instructor rating. Students must demonstrate specific competencies in kayak touring on inland water ways and the ocean to obtain an ACA rating for kayak touring. Students participate in field trips.

Prereq: OLP participants only; successful completion of OLP 111 and OLP 120

## OLP 142 Nordic Skiing Instructor (X) 2 cr

An introduction to beginner and intermediate cross-country skiing skills and ski touring. The course promotes an understanding of introductory cross-country skiing lessons so students can develop their own programs. Students develop personal technical skills, technical knowledge, and instructional abilities. This course meets the Professional Ski

Instructors of America requirements for instructor certification programs. Students must demonstrate specific competencies to obtain instructor certifications. Students participate in field trips.

Prereq: OLP participants only; successful completion of OLP 111 and OLP 120

## OLP 143 Backcountry Travel Instructor (X) 3 cr

Prepares students to become proficient in the implementation and leadership of three season backcountry travel experiences. Students learn core skills of trip planning, safety systems design, route development, and equipment use in the classroom and reinforce these skills in the field. Students participate in a model canoe trip that is designed and led by the OLP core staff. Students then design and execute a backpacking trip. Student must demonstrate specific competencies to obtain leadership ratings.

Prereq: OLP participants only; placement beyond or satisfactory completion of COL 090 and ENG 090; Wilderness First Responder certification

### OLP 144 Challenge Course Programming Instructor (X) 2 cr

Builds upon low and high challenge course experience to develop leadership necessary to design, deliver, and evaluate adventure-based programs in education, recreation, outdoor adventure, youth services, therapeutic settings, and management development training applications. Students must demonstrate competencies to obtain leadership ratings. Prereq: OLP participants only; successful completion of OLP 111 and OLP 120

### OLP 201 Individual Project in Outdoor Leadership I (X) I cr

Begins a student-directed learning project focusing on research, developing a new competency, or broadening understandings of adventure industry practices specific to the student's career goals. With instructional staff feedback and advising, each student identifies a project, develops objectives, researches learning activities, and articulates final project outcomes for completion in OLP 202. Prereq: OLP participants only; placement beyond or satisfactory completion of COL 090 and ENG 090; Wilderness First Responder certification

### OLP 202 Individual Project in Outdoor Leadership II (X) I cr

A continuation of and completion of the project begun in OLP 201. Evaluations focus on developing accurate self-assessment skills. Prereq: OLP participants only; successful completion of OLP 201

### OLP 205 Group Management for Outdoor Leaders II (X) 2 cr

Combines seminar with field placements to continue the development of interpersonal relations concepts and practices begun in OLP 112

Prereq: OLP participants only; successful completion of OLP 112  $\,$ 

# OLP 216 Field Work Experience in OLP II (X) 3 cr

Continues to develop skills in planning, organizing, conducting, and evaluating outdoor adventure education programs. Students conduct a variety of activities with diverse populations to refine their instructional and learning abilities. The focus is more complex field experiences that may require students to conduct overnight programming. Students participate in field trips.

Prereq: OLP participants only; successful completion of OLP 116

### **PHILOSOPHY**

# PHI 103 Introduction to Philosophy (HC) 3 cr

Introduction to the major, classical philosophical problems through a thematic approach. Emphasis on active, informal discussion of contemporary issues.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

## PHI 104 Introduction to Ethics (HC) 3 cr

Introduces the philosophical, theological, and theoretical foundations of ethics. The course surveys the range of applications in contemporary society including business, law, government, health care, and the media. It also examines specific issues such as distributive justice, capital punishment, Just War Theory, and cultural relativism. Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

#### \*PHI 108 Western Religions (HC) 3 cr

An introduction to the fundamental dimensions of religion and the central teachings and practices of Judaism, Christianity, and Islam. Through readings, site visits to and dialogues with practitioners, students explore how these religions shape both individual lives and modern societies.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090  $\,$ 

#### \*PHI II0 Eastern Religions (HC) 3 cr

An introduction to the fundamental dimensions of religion and the central teachings and practices of Hinduism,

Buddhism, and the religions of China and Japan. Through readings, site visits and dialogues with practitioners, students explore how these religions shape both individual lives and modern societies.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

### \*PHI 204 Issues in Ethics and Social Philosophy (HC) 3 cr

Explores contemporary ethical issues which confront the individual and society as a whole. Through philosophical, journalistic, and literary selections, the student examines such topics as personal integrity, racism, poverty, gender equity, and violence. Students consider classical, non-western, and feminist perspectives.

Prereq: PHI 103, PHI 104, or permission of instructor

### \*PHI 205 Biomedical Ethics (HC) 3 cr

Examination of the theoretical and historical foundations of bioethics. Emphasis on the application of ethical theory to the analysis of contemporary issues in health care. Special attention to the cultural content of bioethical problems, specifically issues of race, class, and gender.

Prereq: ENG 101, 103, or 105 or PHI 104 or permission of instructor

### PHI 206 Environmental Ethics (HC) 3 cr

An examination of how philosophy has contributed to our thinking about environmental issues. The course surveys major influences in the development of environmental ethics including: the land ethic, biocentrism, deep ecology, ecofeminism, and social ecology. Applications to specific environmental issues allow students to clarify their own views and hone their critical thinking

Prereq: ENG 101, 103, or 105 or permission of instructor

### **PHYSICS**

#### PHY 101 General Physics I (NC) 4 cr

A non-calculus study of kinematics, mechanics, and heat for students with competence in algebra. Prepares students for further study in the fields of science, mathematics, and health professions. Use of mathematics and analytical writing is emphasized as two ways to describe and understand the physical world. Taught in the physics laboratory using a mixture of lecture, demonstration, discussion, and laboratory exercise.

Prereq: MAT 107 or placement into MAT 108 or permission of instructor

### PHY 102 General Physics II (NC) 4 cr

A continuation of PHY 101, non-calculus treatment of the fields of light, electricity, and magnetism, and atomic and nuclear physics with some topics from modern physics. Lab required.

Prereq: PHY 101 or permission of instructor

### PHY III General Physics I with Calculus (NC) 4 cr

A calculus-based physics course intended primarily for students preparing for careers in science, mathematics, or engineering. Topics covered include kinematics, mechanics of particles and rigid bodies, and conservation laws. The course emphasizes the use of the concepts of physics to solve problems. This course meets in the physics laboratory using a combination of lecture, demonstration, discussion, and laboratory exercise. Prereq: MAT 201 or concurrent enrollment in MAT

### PHY 112 General Physics II with Calculus (NC) 4 cr

A calculus-based study of the laws of electricity and magnetism. Topics include properties of electricity and magnetism, fields, elementary electric current analysis, wave motion, electromagnetic waves. This course is taught in the physics laboratory using a combination of lecture, demonstration, discussion, and laboratory exercise. Prereg: PHY 111; MAT 202 or concurrent enrollment in MAT 202

### POLITICAL SCIENCE

### POL 101 American Politics (BC) 3 cr

American national government and politics. The principles, processes, and institutions which make up the American political system: constitutional framework; federalism; interest groups, parties, elections; Congress; the Presidency; the judicial system. Policy-making and contemporary problems. Prereq: Placement beyond or satisfactory completion

of COL 090 and ENG 090

### POL 103 Comparative Politics (BC) 3 cr

Political institutions and processes in Great Britain, France, Germany, and the former Soviet Union. Selective comparisons with non-European political systems.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

### \*POL 105 International Politics (BC) 3 cr

Traditional principles of international relations and emerging new problems from a political perspective - population, environment, energy, natural resources, economic interdependence, rapid technological change. Provides a global context for dealing with new and developing international considerations.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

#### POL 203 American Civil Liberties (BC) 3 cr

Freedom of expression in history and in contemporary America; the role of the Supreme Court in the maintenance of civil liberties; the influence of official and popular pressures. Includes consideration of religion, assembly, the press and speech, as well as the rights of the accused and constitutional standards of equality.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

#### \*POL 205 American Foreign Policy (BC) 3 cr

An introduction to America's role in world affairs, especially since World War II. Attention is given to the underlying principles of American foreign relations; to the American foreign policy process; to the instruments of modern foreign policy; and to the contemporary foreign policy environment: Soviet-American relations, Western Europe. the Middle East, Africa, Latin America, and the

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090; Recomm: POL 101

### **PSYCHOLOGY**

#### PSY 101 Principles of Psychology (BC) 3 cr

Introduction to the field of psychology and human behavior. The student considers such topics as the history of psychology, research methods, psychophysiology, sensation, perception, learning, cognition, memory, development, motivation, personality, and mental illness.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

#### PSY 209 Abnormal Psychology (BC) 3 cr

A review of research methods, assessment procedures, the history of mental illness, and the major perspectives utilized in understanding mental illness. The course gives particular attention to the diagnostic system and categorization of conditions as developed by the American Psychiatric Association's Diagnostic and Statistical Manual (DSM) as well as attention to current psychotherapeutic and psychopharmacological treatment interventions.

Prereg: PSY 101

### PSY 213 Psychology of Interpersonal Behavior (BC) 3 cr

Interpersonal determinants of human behavior. Theoretical models by Adler, Horney, Fromm, and Berne. Major emphasis on transactional analysis as developed by Berne.

Prered: PSY 101

## PSY 214 Psychology of Peace, Conflict and Violence (BC) 3 cr

A focus on the key concepts of peace psychology: the relationships among violence, social inequalities, peacemaking and the pursuit of social justice. Topics include ethnic conflict, family violence, hate crimes, militarism, conflict management, social justice, nonviolent approaches to peace, and peace education. Students examine systems of violence and systems of peace. Through lectures, discussions, readings, experiential activities, projects, film, and dialogue, students study the philosophy of non-violence, conflict resolution skills, constructive approaches to human relationships, and develop more complex views of the immediate causes of violence and deeper appreciation for the structural roots of violence.

Prereg: ENG 101, 103, or 105; PSY 101

## PSY 215 Theories of Personality (BC) 3 cr

An exploration and application of the major schools of personality theory: psychoanalytic, trait, biological and evolutionary, behavioral, cognitive, humanistic, relational, and sociocultural.

Prereq: PSY 101. For HSV/LHS majors, HSV 101 is also required

# PSY 217 Human Growth and Development (BC) 3 cr

A survey of human physical, psychological, and social development from birth through death. Framework for the study of the individual's cumulative, integrative growth experience. Theories of development and their applications.

Prereq: PSY 101 or permission of instructor

### \*PSY 225 Psychology of Women (BC) 3 cr

An exploration into the behavior and personality of women as seen through their own eyes. Topics for investigation are dispelling the myths and mysteries about the development of women, significant gender differences, the quest for a separate identity, transitional changes and adaptation, and the possibilities for a more generative view of the human life cycle.

Prereq: PSY 101 or SOC 101 or ANT 104 or permission of instructor

### PSY 227 Group Dynamics (BC) 3 cr

Provides the student with a solid understanding of group development and its processes. Students examine their own interpersonal style as it relates to group work. The student explores methods in which interpersonal and intrapersonal behaviors influence such phenomena as leadership, cohesiveness, continuity, diversity and group effectiveness. The course uses experiential learning as a vehicle for understanding the entire group process.

Prereq: PSY 101 or permission of the instructor

### PSY 233 Child Behavior and

### Development (BC) 3 cr

Focuses on the development of the child from conception to adolescence. The concept of development is explored in depth and all aspects of the developing child are considered: social, emotional, physical, verbal, intellectual, and creative. Major theories of child development are reviewed. Research in child development is studied with particular attention paid to naturalistic observation. Prerea: PSY 101 or permission of instructor

# \*PSY 259 The Psychology of Oppression (BC) 3 cr

This course is both experiential and didactic. It is designed to provide students with an understanding of the psychological causes and processes that are endemic to oppression. Our goals are to explore and understand the emotional reality of oppression as it presents itself in our day to day lives. We will explore the similarities and differences among sexism, ageism, classism, heterosexism, racism, antisemitism, other forms of ethnic oppression, and abelism. Through the use of mini-lecture, discussion, readings, experiential activities, projects, film and conversation, we will explore our own attitudes and how oppression operates at interrelated levels of the personal, institutional and cultural. We will also look at how people have worked and may work against oppression.

Prereq: PSY 101 or permission of instructor

# \*PSY 277 Psychology of Death and Dying (BC) 3 cr

Designed to be both experiential and didactic, this course enhances students' understanding of death and dying processes both personally and professionally. Topics covered include cultural attitudes toward death and dying, origins of death anxiety, processes involved in dying, grieving and mourning, children and death, the helping relationship and the caregiver, suicide, euthanasia, burial and cremation, organ and body donations, and community resources.

Prereg: PSY 101 or permission of instructor

### SCIENCE

### SCI 103 Astronomy (NC) 4 cr

Topics to be covered include the celestial sphere and the Copernican Revolution, stellar evolution, stellar observation and measurement, the HR diagram, novae, pulsars, black holes and the Big Bang, relativity and the shape of the universe. Mathematics content is minimal. Lab and evening observations

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

#### SCI 104 Energy: Issues and Principles (NC) 3 cr

Covers both the technical and economic aspects of energy. Designed on a need-toknow basis primarily for the nonscienceoriented student who feels the need to be informed about this field of critical importance to the survival of modern civilization. Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

#### SCI III Survey of Science and Technology (NC) 3 cr

An introduction to selected principles, concepts, and technological applications in physics, chemistry, and biology. Students will construct these concepts through laboratory activities and gain an understanding of their relevance and relationship to the world around them.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

### \*SCI 113 Women in Science and Technology (NC) 4 cr

Examines the historical roots of scientific thought, the development and limitations of scientific methodology, and the contributions of women in science and technology throughout history. Students consider the effects of institutions, work, family, and mentors on the development of women in science and technology. For the laboratory, students examine the inherent biases of scientific methodology, rethink laboratory experiments using non-traditional approach, examine and recreate experiments undertaken by women throughout history, and develop, research, conduct, and present experiments of interest to each individual class.

Prereq: Placement beyond or satisfactory completion of COL 090, ENG 090, and MAT 090

#### SCI 117 Meteorology (NC) 4 cr

An introductory course in meteorology, which is a study of how the atmosphere interacts with solar energy to create dynamic weather systems. The student applies basic meteorological and climatological principles to

the study of local and regional weather patterns. Students do a portion of their work in the computer lab.

Prereq: Placement beyond or satisfactory completion of COL 090, ENG 090 and MAT 090

### SOCIOLOGY

### \*SOC 101 Principles of Sociology (BC)

The study of society through basic concepts and scientific methodology. Examines culture, social systems, institutions, status, role, norms, interaction, deviance, small groups, and social stratifications.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

### \*SOC 201 Social Problems and Deviant Behavior (BC) 3 cr

Major types of deviant behavior in American society; description, theories of causation, and ramifications for the future. Prereg: SOC 101

### **SPANISH**

#### SPA 101 Elementary Spanish I (HC) 4 cr

Fundamentals of Spanish. Acquisition of language functions, vocabulary, structures, and culture through contextualized presentations, interactive activities and extensive laboratory practice.

Prereg: Placement beyond or satisfactory completion of COL 090 and ENG 090

#### SPA 102 Elementary Spanish II (HC) 4 cr

Fundamentals of Spanish. Continued acquisition of language functions, vocabulary, structures, and culture through contextualized presentations, interactive activities, and extensive laboratory practice. Prereq: SPA 101 or equivalent, or one year of high

school Spanish, or permission of instructor

#### SPA 109 Spanish for Native Speakers I (HL) I cr

A survey of the basic components of Spanish with an emphasis on the unique needs of native Spanish speakers who have not studied the language in an academic setting. Particular attention paid to written expression, but also takes advantage of the students' background in and intuitive knowledge of spoken language. For native speakers of Spanish. Prereq: none; for native speakers of Spanish

### SPA III Spanish Skills Practice I (X) 2 cr

An intensive immersion workshop conducted in Spanish. For students who have completed at least SPA 101 or who are returning to the study of Spanish. Using the material studied in SPA 101, students practice and internalize the basic building blocks of Spanish in listening, speaking, reading, and writing. Class time is spent on pair and small group work, drill, video, readings, and authentic materials. Prereq: SPA 101 or equivalent or permission of instructor

### SPA 112 Spanish Skills Practice II (X) 2 cr

An intensive immersion workshop conducted in Spanish for students who have completed at least SPA 102 or who are returning to the study of Spanish. Using the material studied in SPA 102, students practice in order to internalize the basic building blocks of Spanish in listening, speaking, reading, and writing. Prereq: SPA 102 or equivalent, or permission of instructor

### SPA 124 Spanish for Health Professionals (HL) 4 cr

Emphasizes the fundamentals of Spanish both for students seeking positions in health related fields and those already working in the professions. The course focuses on "survival" Spanish language skills and cross-cultural training for health professionals. Students develop their command of Spanish in specific job related areas. The course prepares participants for those aspects of Hispanic/Latino cultures that have an impact on their work. Much of the class is spent working in pairs and small groups role-playing situations that participants will encounter on the job. Prerect: none

# SPA 133 Spanish for Law Enforcement (HL) 3 cr

Emphasizes the fundamentals of Spanish both for students seeking positions in law enforcement and those already working in the profession. The course focuses on "survival" Spanish language skills and cross-cultural training for law enforcement professionals. Students develop their command of Spanish in specific job related areas. The course prepares participants for those aspects of Hispanic/Latino cultures that have impact on their work. Much of the class is spent working in pairs and small groups role-playing situations that participants encounter on the job. Prereq: none

### SPA 143 Spanish for Educators (HL) 3 cr

Emphasizes the fundamentals of Spanish both for students seeking positions in education and those already working in the profession. The course focuses on "survival" Spanish language skills and cross-cultural training for professionals in education. The course develops the participants' command of Spanish in specific job related areas. The course prepares participants for those aspects of Hispanic cultures that have impact on their work. Students spend much time working in pairs and small groups role-playing situations that participants encounter on the job. *Prereq: none* 

## SPA 201 Intermediate Spanish I (HC) 4 cr

Emphasizes continued acquisition of language functions, vocabulary, idioms, structures, and culture through contextualized presentations, interactive activities, video, and selected readings. The class is conducted in Spanish. Prereq: SPA 102 or equivalent, or permission of instructor

### SPA 202 Intermediate Spanish II (HC) 4 cr

A conclusion of the intermediate study of Spanish. The course emphasizes continued acquisition of language functions, vocabulary, idioms, structures, and culture through contextualized presentations, interactive activities, video, and selected readings. The class is conducted in Spanish. Prereq: SPA 201 or equivalent, or permission of instructor

# SPA 251 Spanish Composition and Conversation (HC) 3 cr

Development of advanced writing and speaking skills. Representative works of Hispanic literature, available periodicals, and films are the subjects of class discussion and oral and written assignments.

Prereq: SPA 202 or equivalent, or permission of instructor

## SPA 252 Spanish Composition and Conversation II (HC) 3 cr

Continued development of advanced writing and speaking skills. Representative works of Hispanic literature, available cultural readings, and periodicals are the subject of class discussion and oral and written assignments. The class is conducted in Spanish. Prereq: SPA 251 or equivalent, or permission of instructor

# SPEECH COMMUNICATION

# SPE 101 Oral Communication: Public Speaking (SHL) 3 cr

Principles of oral communication, stressing the role of the speaker in the communication process. The course emphasizes the proper preparation and delivery of speeches. Each student gives two or three speeches and participates in a small group activity.

\*Prereq: ENG 101, 103, or 105 or concurrent enrollment\*

# SPE 121 Oral Communication: Small Group Discussion (SHL) 3 cr

Principles of oral communication, stressing the role of the leader/participant in small group discussion. The course emphasizes proper preparation for group learning, problem-solving and meeting management. Students participate in role playing exercises that are based on community and industrial models.

Prereq: ENG 101, 103, or 105 or concurrent enrollment

### \*SPE 131 Oral Communication: Intercultural Communication (SHL) 3 cr

Principles of oral communication, stressing the role of culture as a key variable in the communication process. The class examines the way culture and its various components affect the way humans communicate verbally and nonverbally. Students complete oral communication projects in the form of speeches and group discussions on subjects that pertain to culture and communication. Prereq: ENG 101, 103, or 105 or concurrent enrollment

## SPE 141 Interpersonal Communication (HL) 3 cr

Provides an opportunity for students to increase their ability to communicate effectively in daily interactions through the study of basic interpersonal communication concepts and the practice of speaking, listening, and conflict resolution skills. Students identify and analyze current communication patterns as a step toward increasing interpersonal competence.

Prereq: Placement beyond or satisfactory completion

# of COL 090 and ENG 090 SPE 203 Argumentation and Debate

An introduction to the essential elements of debate with emphasis on preparation and presentation.

Prereg: SPE 101 or permission of instructor

(HL) 3 cr

### THEATER

### THE 101 Introduction to Theater (HC)

Concentrates on the nature and origin of theater from the 5th century B.C. to present. Students learn the language of dramaturgy while analyzing the major works for content and social influence. They recognize and identify dramatic genre, structure and style of major works within the field.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

### THE 105 Play Analysis (HL) 3 cr

Concentrates on the interpretation of various types of dramatic works and scripts. The student learns to critically analyze dramatic work not only for content but also in the context of dramaturgy elements such as plot, theme, character identification, and other critical components in the dramatic field. *Prereq:THE 101* 

### THE 106 StageCraft (HL) 3 cr

The study of the processes of scenery, lighting, and sound design for production realization as approached from the stage designer's point of view. The course emphasizes the creative process used in developing the physical elements of a theatrical production. The student learns how to safely execute the skills demanded of the scenic designer in a handson method and work environment. Students aid in the construction and technical work required for that semester's G.C.C. main production as well as the technical needs/ requirements of the student directed projects. Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

### THE 108 Interactive Dramatics (HL) 3 cr

An introduction examining the use of creative drama in education and recreational settings. Study and practice of the medium to develop the acceptance of the responsibility of thinking, educated theater people for sharing the art of drama in young lives while developing all students in areas of sensory awareness, imagination, movement, role-playing and improvisation.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

### THE 113 Fundamentals of Acting (HL) 3 cr

An introduction to the art of acting with emphasis on characterization, voice, and movement, as well as varieties of acting techniques, script analysis, improvisation, and theater exercises, used to prepare monologues, duet scenes and one-act plays. Additional emphasis is on the uses of acting to improve self-presentation and self-development.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

### THE 133 College Theater Workshop (X) I cr/semester; maximum 4

Practical experience in acting, house management, public relations, publicity, shop and production crews as the current G.C.C. semester production requires. No more than one credit may be earned in any given semester.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090

### THE 213 Advanced Acting (HL) 3 cr

The actor's use of improvisation, abstraction, and development of motivational devices in character through internalization and externalization techniques. The course includes concentration on scene and character development through class performances. Prereq: THE 101, THE 113

### THE 214 Directing – Theory (HL) 3 cr

An introduction to the skills of play production with an emphasis on directing. The student studies the concepts/requirements necessary to mount a full theatrical production. Students analyze and hypothetically cast and produce instructor-approved scripts as their final project.

Prereq:THE 101, 105, 113; and ENG 112, or 114, or 116

## THE 217 Experimental Performance (HL) 3 cr

Requires the student to use their own particular skills and interests to create an original performance work based on themes that emerge from the class itself. Participants use ensemble theatre and movement exercises to integrate the work of the project, which they have expressed in writing, movement, character improvisation, and visual arts, video, music, the sciences, and other areas of interest. Students produce a creative, innovative, and live performance. Prereq: The course is restricted to students completing their final semester of the AA degree in the fields of Dance, Music, Art, or Theater. The course also requires approval of a performing arts faculty member and the class instructor

### THE 223 Acting in Shakespeare (HL) 3 cr

A study of the basic techniques used in Shakespearean acting. Major emphasis is placed on approaching Shakespeare through careful analysis of the use of language, construction of the text, language as a cue for character, situation, and dramatic conflict. The student examines and perform selected works from comedies, histories and tragedies of the playwright, concentrating of the Presentational technique of stylized acting. Prereq: THE 213; and ENG 221 (or concurrent enrollment in ENG221)

#### THE 224 Directing - Practice (HL) 3 cr

The practical application of all skills learned in THE 214, Directing – Theory. The student chooses, analyzes, casts, and directs for performance a 1-act play approved by the instructor. This project is a minimum of 45 minutes performance time and is presented for the G.C.C. community in the Sloan Theater at semester's end. *Prereg: THE 214* 

### THE 226 Stage Skills (HL) 3 cr

A concentrated study of the design and application of stage makeup, mask work, stage combat and stage dialects as they contribute to characterization and motivation in performance work. The course includes fencing techniques for dramatization as part of the physical stage combat study. Students assemble an audition piece and a professional resume, as well as perform and film an audition videotape in the G.C.C. Educational Technology Support Center:

Prereq:THE 213 or THE 224

### **WOMEN'S STUDIES**

# \*WST 115 Introduction to Women's Studies (L) 3 cr

Introduction to women's studies as a basis for understanding human development, social systems, and the historical and biological perspectives that affect women's lives in the 20th century.

Prereq: Placement beyond or satisfactory completion of COL 090 and ENG 090