

# *Course Descriptions*

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## AGRICULTURAL SCIENCE & AGRIBUSINESS

College of Arts & Sciences

### AGR 101 INTRODUCTION TO AGRICULTURAL SCIENCES

3 credits. Prerequisite: none. This course provides an overview of biological, chemical, and physical aspects of soils, plant crop production, and animal production. Emphasis is placed on production agriculture systems and management of healthy soils, pests and diseases to produce nutritious crops, while also considering environmental influences and impacts. Students will also explore diverse agricultural career options.

### AGR 250 FOOD & AGRIBUSINESS MANAGEMENT

3 credits. Prerequisite: Bus 101 or Bus 107. Students learn and apply knowledge of diverse aspects of agribusiness management, including planning, marketing, budgeting, accounting, finance, capital planning, legal considerations, and human resources management. Students will apply this knowledge by developing a comprehensive food or agribusiness management plan.

### AGR 260 AGRICULTURAL TECHNOLOGY, OPERATIONS & SAFETY

3 credits. Prerequisite: Agr 101. Students learn to implement safety practices through usage of all aspects of farm production and technology systems, including tractors, implements, spraying equipment, irrigation, and greenhouse systems.

### AGR 290 SPECIAL TOPICS IN AGRICULTURAL SCIENCES

3 credits. Prerequisite: Agr 101 or permission. Course investigates latest trends in agricultural science, with topics offered on a rotating basis. This course may be repeated once as long as the topics are different.

### AGR 295 SPECIAL TOPICS IN AGRIBUSINESS

3 credits. Prerequisite: Bus 101 or 107, or permission. Course investigates latest trends in agribusiness, with topics offered

on a rotating basis. This course may be repeated once as long as the topics are different.

### AGR 310 PLANT & CROP SCIENCE

4 credits. Prerequisites: Bio 309. This course will provide an overview of plant anatomy, genetics, and physiology as it pertains to the human cultivation and production of agriculture crops. Special attention will be given to environmental factors affecting plant growth including light intensity temperature (air, plant), relative humidity, carbon dioxide, water, mutualistic fungi, and nutrients. Three lecture and three laboratory hours per week. Lab fee.

### AGR 320 PRECISION AGRICULTURE

3 credits. Prerequisite: Env 308. Students develop understanding of the need for precision agriculture approaches to manage spatial variability in the soils, input needs, and yields within and across agricultural parcels. Students will describe the function and be able to implement a system with yield monitoring systems, variable rate technology, GPS, sensors, auto guidance, data acquisition and management, and GIS mapping.

### AGR 330 SOIL FERTILITY

4 credits. Prerequisites: ENV 210, any college level soil science, or instructor permission. Considers the biological and chemical properties of soil, as well as strategies to manage for optimal soil fertility. Practical laboratory exercises provide hands-on experience manipulating biological and chemical soil parameters for optimal fertility.

### AGR 350 FOOD & AGRICULTURE MARKETING

3 credits. Prerequisites: Agr 250, Bus 101, or Bus 107. This course provides a broad understanding of marketing concepts and applies them to food, farm and agriculture-based businesses. Students will learn to identify sales and marketing strategies for commodities, wholesale markets, retail markets, processing and small-scale opportunities. Special emphasis will be placed on marketing to today's consumer, sustainability goals, and enterprise vitality.

### AGR 360 MANAGEMENT SCIENCE OF FARM & AGRIBUSINESS ENTERPRISES

3 credits. Prerequisite: Agr 250. Students learn quantitative, data-analytic approaches to making management decisions for agribusinesses. The course will introduce linear programming, sensitivity analysis and interpretation, network models, inventory models, waiting line models, forecasting, and decision analysis by using spreadsheet and other software applications.

### AGR 495 AGRICULTURE INTERNSHIP

3 credits. Prerequisite: junior standing, and proposal submitted to the agriculture coordinator or Dean 30 days prior to the start of the semester. Supervised field experience in a agricultural or agribusiness setting in which students apply their knowledge and gain career-relevant exposure and training. A minimum of ninety hours of experience, bi-weekly meetings with faculty mentor, reflection assignments, final written and oral presentations.

## AMERICAN SIGN LANGUAGE

College of Arts & Sciences

### ASL 101 AMERICAN SIGN LANGUAGE

3 credits. Overview of American Sign Language (ASL), Deaf culture, and non-verbal communication. Students will develop a basic understanding of the history and use of ASL and learn to communicate through expressive and receptive ASL. Course meets requirement for State of Maine endorsement: Teacher of Students Who Are Deaf/Hard of Hearing.

### ASL 102 INTERMEDIATE AMERICAN SIGN LANGUAGE

3 credits. Prerequisite: Asl 101 or requisite experience. Advanced beginner level class designed to develop knowledge and skills to communicate using American Sign Language (ASL). Vocabulary, sentence construction, and expressive and receptive fingerspelling will be emphasized. In addition, students will continue to refine their knowledge of the D/deaf

community, accessibility issues and laws, and Deaf education.

## ANTHROPOLOGY

*College of Arts & Sciences*

### **ANT 100 INTRODUCTION TO ANTHROPOLOGY**

3 credits. Prerequisite: A passing score on both the reading and writing placement tests or successful completion of Eng 100 or a non-degree seeking student. The development of the human as a bio-cultural phenomenon. Special emphasis on human paleontology, race biology, human prehistory and the development of culture. Considerations of such human institutions as social/political organizations, marriage/family and kinship descent patterns, religions, economics and culture change. The approach is cross-cultural. Archaeological methods and findings are referred to throughout the course.

### **ANT 110 WORLD RELIGIONS**

3 credits. Introduction to five religions that, because of their impact on world civilizations, are known as the “great” religions: Hinduism, Buddhism, Judaism, Christianity, and Islam. Particular emphasis is given to these religions as active contributors to culture and civilization, and as shapers of current political ideologies and dilemmas.

### **ANT 200 ARCHAEOLOGY**

3 credits. Prerequisite: Ant 100. A survey course covering the purpose, theory, and methods of Archaeology. Fundamental scientific methods of excavation, inquiry, and analyses linked to geological and cultural theory and process. Students will engage in topic specific research and writing. Course will include hands-on activities with archaeological collections and field trips.

### **ANT 377 ARCHAEOLOGY FIELD SCHOOL**

3-6 credits. Introduction to archaeological field techniques through excavation of an archaeological site. Intensive training in site survey, excavation technique, recording, analysis and preliminary interpretation of archaeological materials. Students will work with Mi’kmaq and

Maliseet tribal members to conduct ethical research and address indigenous peoples’ concerns regarding sensitive issues.

### **ANT/HTY 471 PREHISTORY OF NORTHEASTERN NORTH AMERICA**

3 credits. Examines the history of northeastern North American native peoples from first evidence to the arrival of Europeans to contemporary Tribes. Emphasis is placed on theories of initial human colonization, glacial and postglacial adaptation, changes in social structure, and interaction with Europeans. Examines contemporary controversy regarding Native sovereignty and self-determination.

## ART

*College of Arts & Sciences*

### **ART 103 DRAWING I**

3 credits. An introductory course that emphasizes basic observational drawing techniques using various mediums - pencil, charcoal, conte crayon, and pen/ink. Students will develop a strong foundation in composition, measurement methods, and rendering while also using drawing as an expressive medium. Studio Fee

### **ART 104 FIGURE DRAWING**

3 credits. An introductory course that focuses on human form implemented through both classical and contemporary methods. Students will focus on observational drawing techniques working from a live model. Course may be repeated for a total of 6 credits. Studio Fee.

### **ART 106 SKETCHBOOK PROCESS**

3 credits. This course builds on observational drawing and incorporates experimentation during a series of field trips throughout the state. Students are given daily objectives to accomplish while drawing from live environments. Creative approaches are encouraged. Finished art work is produced using the sketchbook as the basis. Studio Fee.

### **ART 107 EXPERIENCE OF THE ARTS**

3 credits. A basic survey of creative expression that explores the content of creative disciplines such as music, dance, film, painting, sculpture, drama, liter-

ature, culture and the individuals who participate in creating them, and those of us who view and hear them. Studio fee.

### **ART 108 INTRODUCTION TO GRAPHIC DESIGN**

3 credits. Students in this course will design graphic design artifacts, which may include, but is not limited to, brand development, brochures, stationary, and/or poster design. Traditional and digital techniques will be used over the course of the semester.

### **ART/ENG 116 INTRODUCTION TO FILM**

3 credits. An examination of motion pictures as a fine art medium. Students will write about, read about, and discuss film as an art form, a business, and a mode of expression. Students will learn to critique film and to understand the general makeup of a film production: cinematography, screenplay, acting, directing, etc.

### **ART 120 DESIGN FOUNDATIONS I**

3 credits. Design Foundations I is an integrated mixed media approach to design fundamentals as they relate to two dimensional and three dimensional work. This course investigates the design elements and principles of organizations with an emphasis on creative problem solving and critical analysis of original artwork. Studio fee.

### **ART 121 DESIGN FOUNDATIONS II**

3 credits. Design Foundations II is a fundamental course that analyzes principles of design and color theory in studio projects. This course focuses on non-objective and abstract forms using a multi-media approach to art making. Contemporary movements in art are emphasized. Studio fee.

### **ART 203 DRAWING II**

3 credits. Prerequisite: Art 103. This course uses the foundation built in Drawing I and incorporates exercises in experimentation to studio assignments. Students will be introduced to alternative methods and materials. Assignments encourage creative approaches and studio discussion. Studio fee.

### **ART 211 ART HISTORY I**

3 credits. The visual arts of the West-

ern tradition from prehistoric times to the Gothic age, emphasizing the ancient Mediterranean world, illustrating the place of the fine arts in social and cultural life, and developing judgment in analysis and criticism. Studio fee.

**ART 212 ART HISTORY II**

3 credits. Renaissance to Modern Times. Continuation of Art 211. May be taken without Art 211. Studio fee.

**ART 221 SCULPTURE I**

3 credits. Creation of original forms from traditional and non-traditional mediums involving the basic process of sculpture: modeling, casting and assembly. Studio fee.

**ART 231 COMPUTER ART I**

3 credits. An introduction to the use of the computer as an art tool through basic drawing and painting programs. Studio fee.

**ART 235 VIDEO PRODUCTION**

3 credits. A digital art course designed to give students a solid foundation in the use of video as a creative medium. Includes basic shooting, script development, production skills, and digital editing. Studio fee.

**ART 246 CERAMICS:  
BEGINNING HANDBUILDING**

3 credits. An introduction to working with the properties and the behavior of clay and glazes using handbuilding techniques. Discussion on design quality, artistic direction and craftsmanship will be stressed. The focus includes sculptural and utilitarian forms with regards to both historical and contemporary issues in ceramics. Studio fee.

**ART 247 CERAMICS:  
BEGINNING WHEEL THROWING**

3 credits. An introduction to working with the properties and the behavior of clay and glazes using throwing techniques. Discussion on design quality, artistic direction and craftsmanship will be stressed. The focus includes utilitarian forms with regards to both historical and contemporary issues in ceramics. Studio fee.

**ART 251 PHOTOGRAPHY I**

3 credits. This course covers a comprehensive understanding of a 35 mm camera operation and uses the Photography medium as a form of creative expression. Emphasis is placed on composition, basic photographic techniques and traditions, and exposure to dark room procedures. Individual and group critiques focus on creative development. Studio fee.

**ART 255 TYPOGRAPHY**

3 credits. Prerequisite: Art 108. An introduction to typography as a fundamental element of graphic design, learning formal qualities of type. Topics covered: typographic anatomy and vocabulary, classification of fonts, figure ground relationships, and character manipulation. Course will be structured around lectures, demonstrations, extensive studio work and critiques. Project based course. Studio fee.

**ART 261 PAINTING I**

3 credits. Basic skills in creating a painting through the use of oils and acrylics. Various methods of painting are introduced. Emphasis on creative development. Studio fee.

**ART 270 RELIEF PRINT AND INTAGLIO**

3 credits. An introduction to concepts and techniques of relief and intaglio printmaking. Includes carving woodcuts and linocuts, etching copper plates.

**ART 285 WATERCOLOR**

3 credits. Introductory course in watercolor that emphasizes figure and landscape toward the development of watercolor as an expressive medium. This is accomplished through the completion of painting projects from live models and outdoor subjects. Emphasis placed on the progressive development of skills using watercolor painting techniques. Studio fee.

**ART 301 MIXED MEDIA PROCESS**

3 credits. Prerequisite: Art 101. This course focuses on combining a variety of media, while developing a creative and personal approach to the visual form. This course will introduce students to a variety of tools and techniques, digital

technologies, and found materials. We will examine historical and contemporary examples. Studio fee.

**ART 308 GRAPHIC DESIGN**

3 credits. Prerequisite: Art 255. A continuation of the study of graphic design focusing on project based assignments. Topics covered: print processes, identity/brand development using both typographic and illustrative symbols, being aware and study new and historic type forms, and specialization. Course will be structured around lectures, demonstrations, extensive studio work and critiques.

**ART 311 MODERN ART HISTORY**

3 credits. Prerequisites: Art 211 and Art 212. Twentieth Century painting, sculpture, architecture, photography, and other design systems, schools, and masters from Matisse to Damien Hirst. Studio fee.

**ART 312 AMERICAN ART HISTORY**

3 credits. Prerequisites: Art 211 and Art 212. A survey of American architecture, paintings, sculpture, and the minor arts from the colonial period to the present. Emphasis is placed on identifying an American tradition. Studio fee.

**ART 313 19TH CENTURY ART HISTORY**

3 credits. Prerequisites: Art 211 and Art 212. This course covers the major vanguard movements from Neo-Classicism to Post-Impressionism and Symbolism. Special interests include Barbizon landscape painting, early Realism, Courbet and Scientific Thought, illustrations of the plight of women in early Realism, the origins of Impressionism, Vincent van Gogh, and Paul Gauguin. Studio fee.

**ART 314 ART OF THE NEAR AND FAR EAST**

3 credits. Prerequisites: Art 211 and Art 212. The major artistic movements in Iran, India, China, Japan and related areas in their cultural settings. Emphasis on the philosophical and religious questions asked of the images. Studio fee.

**ART 315 WOMEN IN ART**

3 credits. Prerequisites: Art 211 or Art 212. This course will explore the contri-

butions of women artists to the western art tradition from prehistory to present day, with emphasis on the 20th and 21st Centuries. Examines the socio-cultural conditions often marginalizing women in art history; emphasizes how issues of gender are encoded in art practices, exhibition and collection.

**ART/ENG 316 CONTEMPORARY FILM**

3 credits. Advanced study in contemporary film. Films screened will range from 1970 to present day. This course is a topics course and may be repeated for a total of six credits provided the topics are different.

**ART 321 SCULPTURE II**

3 credits. Work in this course extends the investigation into specific materials and construction technologies pertaining to sculpture forms and the intentions and direction of the more advanced sculpture student. A wide range of skills is offered. Studio fee.

**ART 323 DRAWING III**

3 credits. Prerequisites: Art 103, Art 203. This course is an experimental approach to drawing as a form of expression. Students will utilize a deeper material exploration, color use. The course is student driven, meaning focus on personal studio practice is emphasized. Course can be repeated for up to 6 credits. Studio Fee.

**ART 325 ART INTERNSHIP**

3 credits. Prerequisite: 30 credits completed. Art Internship provides hands-on experience within professional practices in the arts. Students looking for careers in arts administration, art therapy or education are encouraged to develop/execute programming and conduct field work under an instructor's supervision. Review of the experience occurs through group/individual classroom discussion.

**ART 346 CERAMICS: INTERMEDIATE HANDBUILDING**

3 credits. Prerequisite: Art 246. Students learn advanced handbuilding methods of forming clay. Exploration of large-scale work, greater emphasis on design and expression will be addressed.

Focus will be on creating technical and conceptual functional and sculptural. Studio fee.

**ART 347 CERAMICS: INTERMEDIATE WHEEL THROWING**

3 credits. Prerequisite: Art 247. A continuation of wheel forming methods where technique and skills are refined and further developed to help students explore form, function and design. Emphasis is placed on functional ceramics. Studio fee.

**ART 351 PHOTOGRAPHY II**

3 credits. Prerequisite: Art 251. Seeks to expand on technical and aesthetic considerations developed in Photography I, and to create an environment in which individuals can move closer to their own objectives in photographic imagery. Greater emphasis on knowledge of history of photography and significant trends in contemporary photography. Studio fee.

**ART 355 SPECIAL TOPICS IN ART**

3 credits. Advanced study of contemporary themes, artists, and movements from various cultures and backgrounds. Specific course contents will vary by semester and instructor and may emphasize different artists, mediums, genres, and philosophies. Course is repeatable for a maximum of 6 credits.

**ART 361 PAINTING II**

3 credits. Prerequisite: Art 261. Increased emphasis on a personal direction in painting in relation to a specific interest and continued development of technical skills. History of painting and significant contemporary trends are examined. Development of individual creativity stressed. Studio fee.

**ART 399 JUNIOR SEMINAR**

3 credits. Prerequisite: 6 credits in emphasis concentration. This advanced level course will introduce art theory and aesthetics through studio based projects, assigned readings, class discussion, lecture and formal writing. This is a cross-disciplinary seminar/workshop style course meant for greater critical awareness of the student's studio practice. Studio Fee.

**ART 400 ART STUDY TOUR**

3 credits. This course travels to national/international locations and focuses on museums and cultural sites. Students complete visual projects that relate to the culture and art studied. Preparatory lectures and research required. Course may be repeated for a total of 6 credits provided travel locations are different. Studio fee.

**ART 401 MIXED MEDIA**

3 credits. Prerequisites: Art 120; Art 301 preferred but not required. The course is focused on the three-dimensional object and working within site-specific space. This course provides a foundation in mold making, projected image, assemblage, and encourages experimentation through invented mark making. Course may be repeated for a total of 6 credits. Studio fee.

**ART/ENG 403 FILM SEMINAR**

3 credits. Prerequisite: Art/Eng 116. Advanced study in specific film genres, technologies, aesthetics, theory and criticism, or directors. Course may be repeated for a total of 6 credits provided the topics are different.

**ART 410 INSTALLATION ART**

3 credits. Prerequisites: Art 301 or Art 221. This course is focused more on three-dimensional objects, video installation, and working with site-specific space. This course offers flexibility where students develop their own ideas about image making through creative problems. Curriculum will focus on contemporary art movements. Can be repeated for up to 6 credits. Studio fee.

**ART 413 RENAISSANCE ART HISTORY**

3 credits. Prerequisites: Art 211 and Art 212. European painting, sculpture and architecture of the 15th and 16th centuries with emphasis on the art of Italy and on the arts as a medium expressive of evolving human history and philosophy. Studio fee.

**ART/ENG 416 GREAT FILM DIRECTORS SERIES**

3 credits. Examining the filmographies of one Master Film Maker: Fritz Lang, Alfred Hitchcock, Jean-Luc Godard,

Martin Scorsese, and others. Emphasizing an in-depth analysis of the director as auteur and theorist, and their understanding of the aesthetics of film language. Screening representative films, lectures, written assignments. May be repeated in differing topics. Studio fee.

**ART 421 SCULPTURE III**

3 credits. Prerequisite: Art 321. An advanced course in sculpture that allows students to develop a personal direction of expression, exploring mediums and develop a sustainable studio practice. Readings, discussions and slide presentations on contemporary art and culture supplement the studio work and critiques. Repeatable for up to 6 credits. Studio fee.

**ART 446 CERAMICS: ADVANCED HANDBUILDING**

3 credits. Prerequisites: Art 246, 346. A continuation of handbuilding techniques and skills allowing the student to develop a personal direction of expression. Repeatable for credit. Studio fee.

**ART 447 CERAMICS: ADVANCED WHEEL THROWING**

3 credits. Prerequisites: Art 247, 347. A continuation of wheel throwing techniques and skills allowing the student to develop a personal direction of expression. Repeatable for credit. Studio fee.

**ART 451 PHOTOGRAPHY III**

3 credits. Prerequisite Art 351. Designed to help students clarify and establish a personal direction in photography. Course content and themes are self-directed. Students are encouraged to develop a body of work that would be displayed in a one-person exhibition. Course is repeatable for up to 6 credits. Studio fee.

**ART 461 PAINTING III**

3 credits. Prerequisite: Art 361. Explore and expand the scope of your personal relationship to painting. Introduces written documentation of painting ideas in conjunction with studio work. Examination of significant contemporary and innovative trends in painting. Course may be repeated for up to 6 credits. Studio fee.

**ART 491 SENIOR RESEARCH PROJECT**

3 credits. Co-requisite: Art 499A. This seminar course is an immersive research project that aligns with the student's Senior Show thesis and provides more critical awareness of studio practice. Coursework is presented through discussion, reflective writing, oral presentation, and research papers.

**ART 499A SENIOR THESIS PROJECT I**

3 credits. Prerequisite: enrolled in BFA Degree, 21 credits in area of emphasis. This course focuses on formulation strategies for a body of work. Students are expected to establish a rigorous studio practice and participate in weekly critiques. Students complete written and oral assignments and a group exhibition. Studio fee.

**ART 499B SENIOR THESIS PROJECT II**

3 credits. Prerequisite: enrolled in BFA Degree, Art 499A during the same academic year. This course stresses a written and oral defense of a comprehensive body of work presented in a one-person thesis exhibition. Documentation of work, website creation, and professional gallery practices are introduced. Studio fee.

**ART 499C SENIOR PROJECT III**

3 credits. Prerequisite: Enrolled in BA degree, 18 credits in area of emphasis. This course focuses on an advanced project based in the student's area of emphasis. Students are required to defend their artwork in written and oral assignments. Their project will terminate in a group exhibition. Studio fee.

**BIOLOGY**

*College of Arts & Sciences*

**BIO 103 HUMAN BIOLOGY**

3 credits. Prerequisite: College-level science placement or science practicum as a co-requisite. Human biology will focus on the structure and physiology of the bodily systems. This information forms the basis for explanations of what and why significant changes in these systems cause health problems. The individual human will also be discussed with respect to the environment and healthy living.

**BIO 104 INTRODUCTION TO HUMAN NUTRITION**

3 credits. Student will use inquiry-based activities to attain skills in assessing their health status and practicing a healthy lifestyle. While working with free software (choosemyplate.gov) for healthy behavioral changes students will explore nutrients, human metabolism, and energy balance to facilitate changes toward pursuing goals that promote sound life-long behaviors.

**BIO 105 BIOLOGY FOR EVERYDAY LIFE**

4 credits. Introductory biology for non-majors which emphasizes the connections between biology and everyday life. Topics include scientific inquiry, chemistry of life, cells, genetics, evolution, human biology, diversity of living organisms, and ecology. On-line format includes video lectures and on-line discussion groups. Students will conduct thirteen lab activities in their home or dorm.

**BIO 112 GENERAL BIOLOGY I**

4 credits. Prerequisite: College-level science placement or science practicum as a co-requisite. The first semester of a two-semester lecture and laboratory course in biology which serves as the prerequisite for upper level biology courses. The lecture portion introduces the basic principles and levels of biological organization from the cell through the organism to ecosystems. The laboratory introduces scientific investigative procedures, methods, equipment, and techniques as applied to selected biological phenomena. Three lecture hours and three laboratory hours per week. Offered every semester. Lab fee.

**BIO 113 GENERAL BIOLOGY II**

4 credits. Prerequisite: Bio 112. The second semester of a two-semester lecture and laboratory course in biology which serves as prerequisite for upper level biology courses. Course introduces the diversity of life through a phylogenetic survey of major taxa in the three domain classification system. Laboratories introduce the morphology of representative living organisms. Three lecture hours and

three laboratory hours per week. Offered spring semester. Lab fee.

#### **BIO 171 PRINCIPLES OF WILDLIFE MANAGEMENT**

3 credits. Prerequisite: College-level science placement or science practicum as a co-requisite or a non-degree seeking student. This is an introductory class with no prior knowledge of wildlife necessary. It focuses on the history of wildlife management; public attitudes, values, and perceptions and their social and cultural impacts; economics; animal wildlife with respect to food, cover, population ecology and water; forest management and wildlife.

#### **BIO 200 RESEARCH METHODS IN BIOLOGY**

3 credits. Prerequisite: Mat 201. Students will develop skills in analysis of scientific literature, biological experimental design, using spreadsheets to organize, summarize, and graph data, data analysis, oral and written communication skills, and ethical considerations in research.

#### **BIO 240 ANIMAL SCIENCE**

4 credits. Prerequisite: Bio 113. An overview of animal science useful to students interested in agriculture or veterinary animal care. Topics include human-animal interactions, breeding and genetics, parasites and diseases, and anatomy and physiology of reproduction, digestion, growth, and aging in companion and production animals. Three lecture and three laboratory hours per week. Lab fee.

#### **BIO 261 HUMAN ANATOMY & PHYSIOLOGY I**

4 credits. Prerequisite: Bio 112. The first semester of the two-semester intermediate level sequence, lecture and laboratory (Bio 261, 262) on the structure and function of the human body. Topics include: tissues and cardiovascular, endocrine, excretory, skeletal (with joints), and muscular systems. Three lecture hours; two laboratory hours per week. Fall semester. Lab fee.

#### **BIO 262 HUMAN ANATOMY & PHYSIOLOGY II**

4 credits. Prerequisite: Bio 261. The second semester of the two-semester se-

quence (Bio 261, 262) on the structure and function of the human body. Topics include the nervous, including somatic and special sense, digestive, immune, reproductive, and integumentary systems. Three lecture hours; two laboratory hours per week. Spring semester. Lab Fee.

#### **BIO 300 HUMAN NUTRITION**

3 credits. Prerequisite: Bio 112 or Chy 111. A "lecture-free" course using inquiry-based activities to explore nutrients, human metabolism, energy balance, nutrition for fitness and sports, eating disorders, and food safety. During a service-learning component, each student completes a nutritional assessment of a volunteer participant using computer software for diet and activity analysis. Offered spring semester.

#### **BIO 303 CELL BIOLOGY**

3 credits. Prerequisite: Bio 113. This course will explore the inner workings of the cell including the structure and function of membranes and organelles, signaling through receptors, intracellular vesicle trafficking, cell-cell communication and the extracellular matrix, the cytoskeleton, the cell cycle and apoptosis, and current topics. Primary literature and cell variety will be emphasized.

#### **BIO 306 COMPARATIVE PHYSIOLOGY**

4 credits. Prerequisite: Bio 113. This course will focus on a comparison of the physiological strategies which invertebrate and vertebrate animals use to overcome the differing challenges they face during survival. Topics will include obtaining energy, removing wastes, cellular communication, and maintenance of homeostasis. Lecture and laboratory components. Lab fee.

#### **BIO 309 PLANT BIOLOGY**

4 credits. Prerequisite: Bio 113. A lecture and laboratory course which presents a survey of plant anatomy, physiology, development, diversity, and interactions with the environment. Three lecture hours per week and one three hour laboratory. Labs may include local field trips. Offered spring semester of even years. Lab fee.

#### **BIO 310 ORNITHOLOGY**

4 credits. Prerequisite: Bio 113. A lecture and laboratory course which presents an overview of the evolution, anatomy, physiology, behavior, and ecology of birds. Laboratory activities emphasize identification of families and local species. Three lecture and laboratory hours per week, plus an overnight Saturday field trip. Offered spring semester. Lab fee.

#### **BIO 315 EVOLUTION**

3 credits. Prerequisite: Bio 113. This course presents an overview of biological evolution. Students will discuss the scientific evidence for evolution as well as compare mechanisms and models of evolution from a molecular to organismal level. An emphasis will be placed on analysis, discussion, and presentation of scientific information.

#### **BIO 316 GENERAL MICROBIOLOGY**

4 credits. Prerequisite: Bio 113 (Bio 112 for MLT majors). A lecture and laboratory course which presents a survey of microorganisms emphasizing fungi and bacteria for students majoring in biology or the health sciences. The classification, genetics, physiology, life history, and ecology of representative microorganisms along with virology, immune system, serology, microscopy and biotechnology are studied. Laboratory experiences include culturing, isolation and identification of bacteria and fungi. Additional components include procedures associated with water quality, serology, antimicrobial testing, phase contrast, and fluorescent microscopy. Three lecture hours and four laboratory hours per week. Lab fee.

#### **BIO 327 BIOCHEMISTRY**

4 credits. Prerequisites: Chy 221 and Co-req Chy 222. Course presents an introduction to biochemistry with topics concerning functional groups, proteins and other biomolecules, thermodynamics of chemical reactions, enzyme structure, kinetics and regulation, energy metabolic pathways and signal transduction. Laboratory techniques include enzyme rate measurement, protein purification and immunology techniques. Three lecture

hours and three laboratory hours per week. Lab fee.

**BIO 336 NEUROBIOLOGY**

Prerequisite: Bio 261 or Bio 306 or permission of instructor. Introduces structure and function of the mammalian nervous system with emphasis on humans. The peripheral and central nervous systems are studied using anatomical, physiological, and behavioral approaches. Offered odd year Spring semesters. Lab fee.

**BIO 350 GENETICS**

4 credits. Prerequisite: Bio 113. Using active-learning approaches, students explore molecular and classical genetics topics including DNA and protein synthesis, mutations, cell reproduction, Mendelian and non-Mendelian inheritance, gene mapping, chromosome abnormalities, human genetic disease, epigenetics, RNA function, genome sequence, and genetic engineering. Labs emphasize molecular biology techniques, preparing students for optional short course at Mt. Desert Island Biology Laboratory. Lab fee.

**BIO 360 VERTEBRATE BIOLOGY**

4 credits. Prerequisite: Bio 113. A lecture and laboratory course which presents an overview of the vertebrate evolution, taxonomy, anatomy, and physiology. Laboratory activities emphasize local vertebrates and include a field trip, examination of vertebrate specimens, dissections, and experiments. Three lecture and three laboratory hours per week. Lab fee.

**BIO 368 GENETICS AND GENOMICS FOR HEALTH-CARE PROFESSIONALS**

2 credits. Prerequisite: Bio 100 or 261, 262. This course will expose you to the important role that genetics and genomics can play in medical decisions, practices and applications. It presents an overview of the field of genetics and genomics with a focus on health care professions. Course originates from UMFK, online for nursing students only.

**BIO 400 BIOLOGY SENIOR PROJECT**

3 credits. Prerequisite: Bio 200. Students will develop a project proposal that incorporates the scientific research pro-

cess and results in written work (grant proposal, curriculum documents, or other written work) and an oral presentation to a scientist or science educator audience.

**BIO 402 PATHOPHYSIOLOGY**

3 credits. Prerequisite: Bio 262. Students will study the abnormal, diseased physiological processes, examine altered cell functions, injury and death. Students will gain knowledge in the body systems and inability of diseased systems to maintain homeostasis. Other topics include inflammation, immunity, neoplasia, adaptations of the body to stress and aging

**BIO 410 ADVANCED TOPICS IN ECOLOGY**

3 credits. Prerequisite: Ecy 355. A seminar style course that focuses on topics in ecology combining discussion and analysis of primary literature with a field-based ecological research project. Students will complete individual components within a broader project, including experimental design, data collection and analysis, and written and oral communication of the topic studied. Course can be repeated for a maximum of 6 credits, provided the topic is different.

**BIO 445 INVERTEBRATE ZOOLOGY**

4 credits. Prerequisite: Bio 113. A lecture and laboratory course in which an overview of the organismal diversity within the invertebrates is given by studying the biology of selected taxa. This information is coordinated with the labs to critically examine current hypotheses in phylogeny and supported by a weekend field course to a marine biological center. Three lecture hours and three laboratory hours per week. Lab fee.

**BIO 495 BIOLOGY INTERNSHIP**

3 credits. Prerequisite: Bio 200; Biology major or minor with junior or senior standing. Supervised field experience in a biological or biomedical setting in which students gain career-relevant exposure and training. A minimum of ninety hours of experience, bi-weekly meetings with faculty advisor, reflection assignments, final written assignment and oral presentation.

**BIO 499 BIOLOGY SENIOR THESIS**

3 credits. Prerequisites: Bio 200, senior standing, and proposal to be submitted to the biology program committee 30 days prior to first day of semester. Biology majors who have already conducted substantial research work with a faculty mentor will write a senior thesis and orally present this work at a department seminar. Literature review, experimental design, data collection and analysis, thesis writing and revision, and presentation will be conducted with faculty mentor oversight.

**BUSINESS**

*College of Professional Programs*

**BUS 100 PERSONAL FINANCE**

3 credits. Covers budgeting and planning personal revenues, expenses, and investments. Specific areas include education, insurance (life, medical, auto, and real estate), interest rates and the effect on consumer buying and investing, real estate (buy, rent or build), mutual funds (load, no-load, open end and closed end funds), building a portfolio of stocks and bonds, reading and understanding financial data, and the need for wills and trusts.

**BUS 101 INTRODUCTION TO BUSINESS**

3 credits. This course is intended to help first year business management students clarify their business education and career goals. Basic concepts of management, marketing, operations, finance, and human resource management will be surveyed. Classroom lectures will be supplemented by field trips to local businesses and lectures by guest speakers.

**BUS 107 INTRODUCTION TO BUSINESS AND ECONOMICS**

3 credits. This course will introduce students to the role and function of a business enterprise and how it operates in our modern legal, political, social and economic environment. Topics include management, accounting, finance, economics with and analysis of individual markets for decision-making, marketing, and operations



**BUS 125 INTRODUCTION TO BUSINESS COMPUTING**

3 credits. Introduction to business computing and hands-on training with professional application software used by modern businesses. Provides a working knowledge of word processing and an in-depth understanding of spreadsheets, brackets, and database management systems.

**BUS 141 INTRODUCTION TO PROJECT MANAGEMENT W/MICROSOFT PROJECTS**

3 credits. Introduction to Project Management will present the foundational skills needed to have an immediate impact on projects. Microsoft Project will be used with an emphasis on practical application in the workplace. This course will also provide the skills needed to be an effective member and leader of project teams.

**BUS 150 INTRODUCTION TO FINANCIAL ACCOUNTING**

3 credits. Prerequisite: Mat 17 or equivalent. Topics include transaction analysis, recording accounting information, and preparation of financial statements. Additional topics include accounting for sales, cost of sales, inventory, and other assets. The emphasis is on communicating financial information to external users. Students use accounting software to establish and maintain an accounting system for a simulated business.

**BUS 200 INTERMEDIATE BUSINESS COMPUTING**

3 credits. In-depth exploration of the advanced features of the Microsoft Office suite. Integration of spreadsheet and database information into reports and presentations and querying functions. Students lacking significant prior experience with business computing are advised to take Bus 125 or prior to enrolling in this class.

**BUS/COM 210 ORGANIZATIONAL COMMUNICATION**

3 credits. This course explores essential oral communication skills for professional settings. Students will develop proficiencies relevant for leadership, conflict resolution, debate, group interactions,

group facilitation, and decision making. Applications will include various forms of message delivery, such as presentations, impromptu speaking activities, and simulations of common professional communication scenarios.

**BUS 220 MANAGERIAL ACCOUNTING**

3 credits. Prerequisite: Bus 150. Accounting for internal decision making, planning, and control purposes. The manufacturing environment is emphasized. Topics include cost behavior and analysis, relevant costs, job order and process cost systems, budgeting, and standard costs.

**BUS 240 CHANGE MANAGEMENT**

3 credits. This course will analyze the forces that drive organizations to change, examine impediments to change, and survey a range of approaches for making organizational change more effective. This course provides practical skills for managing and leading change in your personal life and within any organization.

**BUS 244 MANAGEMENT INFORMATION SYSTEMS**

3 credits. Prerequisite: Bus 125 or Bus 200. This course will provide an introduction to computer and telecommunications information systems. Topics covered will include information system concepts, hardware and software systems components, basics of systems operation, and the ethical use of information systems in culturally diverse organizations and societies. This course is designed to accommodate non-business majors who wish to gain a greater understanding of information systems.

**BUS 245 PROGRAMMING FOR MANAGERS**

3 credits. Prerequisite: Bus 125 or Bus 200. Programming structure for modern programming languages used in businesses. The necessary skills of programming design, structures, testing, documentation, implementation, and maintenance are accomplished using PC-based programming tools. Provides MIS students and manager with an understanding of how object-oriented programming can be used to enhance business applications.

**BUS 260 LEADERSHIP**

3 credits. This course focuses on understanding the nature of leadership in professional environments. Students will examine the characteristics, roles, and functions of an effective leader allowing them to lead and manage change successfully. Major theories of leadership are discussed and students will learn to think critically about best practices and applications.

**BUS 321 HUMAN RESOURCE MANAGEMENT**

3 credits. Prerequisite: junior standing. How organizations manage people as a key resource. Topics covered are job analysis, planning, recruiting and selection, discrimination laws, training, compensation, and collective bargaining.

**BUS 325 FINANCIAL MANAGEMENT**

3 credits. Prerequisite: Bus 220. This course emphasizes the role of the financial manager in forecasting and planning, coordination and control, dealing with financial markets, and, primarily, major investment and financing decisions. Coverage includes financial statement analysis, the time value of money, valuation of securities, the cost of capital, capital budgeting, capital structure, financial forecasting, and managing and financing current assets.

**BUS 330 MARKETING MANAGEMENT**

3 credits. Marketing considers how organizations identify their distinctive competence to serve customer needs in a competitive environment. Topics include marketing ethics, consumer behavior, new product development, market forecasting, sales management, industrial buyer behavior, and international marketing.

**BUS 335 ORGANIZATIONAL BEHAVIOR**

3 credits. Organizational behavior is a field of study that seeks to understand, explain, and improve human behavior in organizations at the individual, interpersonal, team and organizational levels. Students will gain an awareness and knowledge of contemporary issues and approaches to organizational communication and change facing organizations.

**BUS 341 ENTREPRENEURSHIP**

3 credits. Managing and growing a small business after start-up. Students are provided with the background theories for understanding the role of the entrepreneur. Development of a strategic plan for a growing business allows for analysis of the issues and problems that an entrepreneur is likely to encounter. Increases awareness of entrepreneurship, but also teaches critical analysis skills.

**BUS 342 SPREADSHEET APPLICATIONS**

3 credits. By using Microsoft Excel, this course explores techniques in spreadsheet software as used to design and develop business-related applications. Topics include formulas and functions, charting, data operations, pivot tables, goal seeking, what-if analysis, data tables, importing data, and macros.

**BUS 343 PROJECT RISK AND COST MANAGEMENT**

3 credits. Prerequisite: Bus 141. This course will cover the Risk and Cost Management process as defined by the PMBOK. In this course, we will cover defining risk, planning for risks, responding to risks, and the proper methods for risk monitoring and controlling. Other topics covered will include project cost and managing the project budget.

**BUS 345 DATABASE MANAGEMENT**

3 credits. Co-requisite: Bus 244. This course focuses on the database components of an information system. Topics covered include database models, data structures, storage, retrieval, manipulation, and reporting within organizations. Special emphasis will be placed on database applications within the functional areas of business such as human resources, finance, accounting, marketing, and operations.

**BUS 348 COST ACCOUNTING**

3 credits. Prerequisite: Bus 220. Topics covered include basic cost control concepts, manufacturing statements, accounting for material inventory, factory overhead costs, job order costing, activity based costing, and process costing. Students are introduced to cost

estimation methods, cost-volume-profit analysis, budgeting and variances, and decision-making models.

**BUS 350 BUSINESS LAW I**

3 credits. The study of the legal system, business ethics, torts, and product liability, with particular emphasis on contract and sales law.

**BUS 352 BUSINESS LAW II**

3 credits. The study of agency, commercial paper, creditors' rights and bankruptcy, business organizations, federal securities regulation, accountant legal liability, property law including bailments and landlord/tenant, insurance, and wills and estates.

**BUS 353 LEGAL AND ETHICAL ISSUES IN BUSINESS**

3 credits. Prerequisite: Pcj 215. An overview of business and society, corporate social responsibility and ethics; focused study of legal topics including the Constitution, contracts, torts and government regulation. Developing analytical skills and professional communication skills are emphasized.

**BUS 359 IT PROJECT MANAGEMENT**

3 credits. Prerequisite: Bus 200. This course provides students with the fundamentals and best practices of information technology (IT) project management. Real-world project experience provides students with skills needed to deliver projects on time, within budget, and to specification. Determining project scope, setting/management stakeholder expectations, identifying/managing IT risks, and meeting quality standards are all covered.

**BUS 361 INTERMEDIATE ACCOUNTING I**

3 credits. Prerequisite: Bus 150. Financial accounting and its basic theory. Analysis and preparation of financial statements, statements of income and retained earnings, balance sheet and statement of cash flows. Accounting treatment of current assets, valuation of inventories, accounting for property, plant and equipment, and depreciation.

**BUS 362 INTERMEDIATE ACCOUNTING II**

3 credits. Prerequisite: Bus 361. Ac-

counting for liabilities, stockholders' equity, intangible assets, and long-term investments. Accounting for leases, income taxes, and pension obligations.

**BUS 466 GOVERNMENTAL & NOT-FOR PROFIT ACCOUNTING**

3 credits. Prerequisite: Bus 220. This course consists of the study of fund accounting and the financial statements of state and local governments, hospitals, and other nonprofit entities. General financial principles and fund accounting principles are compared and aligned with GASB statements.

**BUS 375 TOPICS IN ACCOUNTING AND FINANCE**

3 credits. Prerequisite: Bus 220 and junior standing. Topics in accounting and finance not covered by regularly offered courses. Content varies to suit current needs. Course may be repeated for credit.

**BUS 376 INDEPENDENT AUDITING**

3 credits. This course provides a logical framework of the fundamental steps comprising the auditing process and the application of Generally Accepted Auditing Standards. Special attention is given to the Code of Professional Ethics, the legal liability inherent in the Attest Function, the evaluation of internal control, and the audit of electronic data processing systems.

**BUS 377 FEDERAL TAXATION**

3 credits. Prerequisite: Bus 220. Determination of individual income taxation including income inclusions and exclusions, deductions, sales, exchanges, and other dispositions of property.

**BUS 378 FEDERAL TAXATION II**

3 credits. Prerequisite: Bus 220. This course teaches the complex tax concepts of corporate, partnership, and estate and trust taxation.

**BUS 400 PROJECT MANAGEMENT APPLICATIONS**

3 credits. Prerequisite: Bus 343. Service learning opportunity to apply project management skills. Experience work on a project opportunity for a real organization. This course provides students with the opportunity to utilize their commu-

nication, teamwork, critical thinking, and project management skills to assist a local organization with an initiative of importance.

**BUS 401 ADVANCED PROJECT MANAGEMENT APPLICATIONS II**

3 credits. Prerequisite: Bus 400. Continued service learning opportunity to apply project management skills. Experience work on a project opportunity for a real organization. This course provides students with the opportunity to implement a project for an organization, while utilizing communication, change management, teamwork, critical thinking, and project management skills.

**BUS 405 MIS SPECIAL TOPICS**

3 credits. Co-requisite: Bus 244. A seminar class investigating the newest topics in information systems. Using hands-on methodology, delve into an information systems topic relevant to today's innovative businesses. Topics are offered on a rotating basis. This course may be repeated for credit as long as the topics are different.

**BUS 410 TOPICS IN BUSINESS MANAGEMENT**

3 credits. Prerequisite: junior standing or higher. Research of an emergent topic followed by a service learning project designed to help local organizations or professionals develop strategies to deal with changes in economic and market conditions associated with the topic. May be taken more than once.

**BUS 415 OPERATIONS MANAGEMENT**

3 credits. Operations management focuses on the use of six sigma methodology in both the manufacturing and service industries. Topics will include introducing students to the DMAIC steps for process improvement, while having the ability to apply those steps through a service learning project with a real organization.

**BUS 440 BUSINESS ANALYTICS**

3 credits. Prerequisite: Bus 244. This course focuses on the development and delivery of predictive data analysis for strategic decision making in organizations. Students will apply the principles

and tools to real-world problems, enabling them to integrate their knowledge of business intelligence in their careers and is essential to their performance and competitive advantage.

**BUS 443 TELECOMMUNICATIONS AND NETWORKS**

3 credits. Prerequisite: Bus 244. This course focuses on the use of telecommunications hardware and software to integrate the components of an information system into networks. Topics covered will include communications devices and carriers, distributed processing, and network software. Special emphasis will be placed on such common applications as e-mail, voicemail, local area networks, networking microcomputers and mainframes, and the internet.

**BUS 464 ADVANCED ACCOUNTING**

3 credits. Prerequisite: Bus 362. Specialized topics in financial accounting. The accounting treatment of mergers and acquisitions, with special attention to the preparation of consolidated financial statements at the date of acquisition and post-acquisition. An overview of accounting for inter-company profit and asset transfers. Partnership accounting and accounting for foreign currency translation.

**BUS 469 STRATEGIC PROFESSIONAL COMMUNICATION**

3 credits. Prerequisite: Senior Status. Using business knowledge and analytical skills, students develop professional level oral and written communication skills. Experiential learning exercises provide opportunities to develop strategic solutions to situations confronting a hypothetical organization.

**BUS 489 BUSINESS POLICY & STRATEGY**

3 credits. Integrates the functions of marketing, finance/accounting, operations, human resources, and information systems into a coherent whole using the concept of "strategy".

**BUS 495 BUSINESS INTERNSHIP**

3-6 credits. Prerequisite: Senior standing or permission of instructor. Business majors have the opportunity during their

senior year to apply and compete for an internship with a local business. Internships can be taken in the areas of marketing, personnel, accounting, production, or finance and will normally take place throughout a fifteen-week semester. The experiential content and student responsibilities will be determined by the faculty advisor and the employer.

**CHEMISTRY**

*College of Arts & Sciences*

**CHY 111 GENERAL CHEMISTRY I**

4 credits. Prerequisite: College-level science placement or science practicum as a co-requisite. The first semester of a two-semester lecture and laboratory introductory course in general chemistry. Topics will include the study of the states of matter, structure of matter, chemical reaction, stoichiometric problems, and solutions, periodic relationships and periodic table. Three lecture hours and three laboratory hours per week. Lab fee.

**CHY 112 INTERMEDIATE CHEMISTRY**

4 credits. Prerequisite: Chy 111 or Physical Education or Athletic Training major. The second semester of a two-semester lecture and laboratory introductory course for students in allied health programs. Topics will include acids and bases, reaction rates, equilibrium constants, buffers, and organic chemistry. Three lecture hours and three laboratory hours per week. Lab fee.

**CHY 122 GENERAL CHEMISTRY II**

4 credits. Prerequisite: Chy 111. The second semester of a two-semester lecture and laboratory course in general chemistry. Topics include intermolecular forces, solutions, chemical kinetics, chemical equilibria, acids and bases, ionic equilibria of slightly soluble salts and acids and bases, and an introduction to thermodynamics. Three lecture hours and three laboratory hours per week. Lab fee.

**CHY 221 ORGANIC CHEMISTRY I**

4 credits. Prerequisite: Chy 122. The first semester of a two-semester lecture and laboratory course in organic chemistry. The course presents a survey of the

classes of organic compounds, their reactions with emphasis on mechanisms, and the relationship between structure and reactivity. Three lecture hours and three laboratory hours per week. Lab fee.

### **CHY 222 ORGANIC CHEMISTRY II**

4 credits. Prerequisite: Chy 221. The second semester of a two-semester lecture and laboratory course in organic chemistry. The course presents a survey of the classes of organic compounds, their reactions with emphasis on mechanisms, and the relationship between structure and reactivity. Three lecture hours and three laboratory hours per week. Lab fee.

## **CHINESE**

*College of Arts & Sciences*

### **CHI 101 INTRODUCTORY CHINESE I**

3 credits. This is an introduction to modern standard Chinese (Mandarin) with emphasis on developing conversational skills by using fundamental grammatical patterns and vocabulary in functional and culturally suitable contexts. Simplified characters are used in this course, but traditional characters will also be introduced. Basic reading and writing will be taught. Some Chinese culture, history, and arts will be introduced in this course.

### **CHI 102 INTRODUCTORY CHINESE II**

3 credits. This is a continuation of Introductory Chinese I. This course aims to communicate in Chinese for everyday purposes. The emphasis of this course is on language practice. The rules of grammar and pronunciation will also be taught carefully. The Chinese culture, history, art and local customs will also be introduced in this course.

## **COMMUNICATIONS**

*College of Arts & Sciences*

### **COM/BUS 210 ORGANIZATIONAL COMMUNICATION**

3 credits. This course explores essential oral communication skills for professional settings. Students will develop proficiencies relevant for leadership, conflict resolution, debate, group inter-

actions, group facilitation, and decision making. Applications will include various forms of message delivery, such as presentations, impromptu speaking activities, and simulations of common professional communication scenarios.

## **COMPUTER SCIENCE**

*College of Arts & Sciences*

### **COS 101 INTRODUCTION TO COMPUTER SCIENCE**

3 credits. This course provides an elementary but substantive overview of computer science and is designed to help you develop critical (algorithmic) thinking skills to stimulate interest in computing and its impact on human culture. Topics include algorithms, structured programming, expression evaluation, information coding, computer operations, software, networking, the object-based paradigm, the relational model, the information systems development life cycle, and human and organizational factors in information systems. COS 101 is a foundation course for the COS degree and a prerequisite to other core courses.

### **COS 103 INTRODUCTION TO INFORMATION TECHNOLOGY**

4 credits. Explores common information technologies and their application. Examines computer based applications including operating systems, file managers, word processors, electronic spreadsheets, database management systems, presentation graphics, electronic communication tools and search tools. Develops competence in locating, interpreting, analyzing, synthesizing, evaluating, and communicating information in both print and electronic media. Course originates from UMFK online, nursing students only.

### **COS 105 COMPUTER PROGRAMMING**

3 credits. Prerequisite: Mat 121. Introduction to operating systems and structured programming with a high-level language. Language syntax, including data types, formats, procedures, arrays, recursions, and functions. Design and analysis of computer algorithms, with emphasis on mathematically oriented problems.

### **COS 110 PROGRAMMING FUNDAMENTALS**

3 credits. Prerequisite: Cos 101. This course will serve as the initial introduction of programming concepts and techniques to non programmers. The course will focus on the key concepts common to solving problems by algorithmic thinking, and to the fundamental concepts and techniques common to all high-level programming languages. The course will be taught using a command line version of the Python programming language.

### **COS 120 INTRODUCTION TO DATA STRUCTURES**

3 credits. Prerequisite: Cos 110. This course will introduce students to the principles and representations of the different types of data structures. The course includes an examination of arrays, stacks, queues, lists, and trees. Students will demonstrate understanding of these principles through completion of several programs utilizing Python.

### **COS 210 INTRODUCTION TO INFORMATION SECURITY**

3 credits. Prerequisite: Cos 101. This course provides an overview of security challenges and strategies of countermeasure in the information systems environment. Topics include definition of terms, concepts, elements, and goals incorporating industry standards and practices with a focus on availability, vulnerability, integrity and confidentiality aspects of information systems.

### **COS 232 INTRODUCTION TO CYBER FORENSICS**

3 credits. Prerequisite: Cos 210. This course provides an introduction to digital forensics. This course focuses on the use of the most popular forensics tools and provides specific guidance on dealing with civil and criminal matters relating to the law and technology. Includes discussions on how to manage a digital forensics operation in today's business environment.

### **COS 240 NETWORK CONCEPTS**

3 credits. Prerequisite: Cos 101. The course presents current coverage of networking hardware and software, along with the skills necessary to succeed in the dynamic field of networking. This course is introductory, with thorough explanations of networking fundamentals, such as protocols, network design and imple-

mentation, and troubleshooting and support. Building the working vocabulary of networking terminology and identify relationship/difference between the wide verity of existing networking protocols and topologies.

**COS 290 SPECIAL TOPICS IN CYBERSECURITY**

3 credits. Prerequisite: Cos 210. Course investigates latest trends in cybersecurity with topics offered in a rotating basis. This course may be repeated once as long as the topics are different.

**COS 340 COMPUTER SECURITY**

3 credits. Prerequisite: Cos 210. This course provides an in-depth analysis of the security components at the operating system level. The focus is on the basic elements that provide identification and authentication, access control and security auditing. In addition to general concepts, both the UNIX/Linux and Windows operating systems are studied. The course will examine software, database, web, and mobile services security as well as exploring new paradigms for access control on computer systems.

**COS 350 DATABASES AND DATABASE SECURITY**

3 credits. Prerequisite: Cos 210 & Bus 345. This course covers building security into data bases during the design. From database installation and testing to auditing and SOL Injection, this course examines into the essential processes and protocols required to prevent intrusions. Life cycle security development models are presented in addition to verification and validation strategies. The role of the security professional in the creation and management of a database security policy is examined.

**COS 410 CYBER SECURITY I**

3 credits. Prerequisites: Cos 210 & Cos 240. The course provides an in-depth look at network defense concepts and techniques. This course examines theoretical concepts of secure network design and provides methodology for creating a secure network defense will a practical, hands-on approach. Topics include firewalls, intrusion detection methods, wireless security methods, VPNs, and pe-

rimeter security fundamentals.

**COS 440 NETWORK SECURITY**

3 credits. Prerequisite: Cos 240 or permission. This course provides an in-depth analysis of the security components at the operating system level. The focus is on the basic elements that provide identification and authentication, access control and security auditing. In addition to general concepts, both the UNIX/Linux and Windows operating systems are studied. The course will examine software, database, web, and mobile services security as well as exploring new paradigms for access control on computer systems.

**COS 485 CYBERSECURITY CAPSTONE**

3 credits. Prerequisite: Completion of 90 credit hours. This course examines the ethics in cybersecurity of different factors, formats, and impacts. The principles of ethics needs to be a critical learning outcome for students that become cybersecurity professionals. The student will also learn how to present their university coursework and any participation in cybersecurity clubs and events using an online portfolio. This is the final course for the Cybersecurity degree program.

**COS 495 CYBERSECURITY INTERNSHIP**

3 credits. Prerequisite: Cybersecurity major or minor with junior or senior standing. Supervised field experience in a cybersecurity setting in which students gain career-relevant exposure and training. A minimum of ninety hours of experience, bi-weekly meetings with faculty advisor, reflection assignments, final written assignment and oral presentation.

**CRIMINAL JUSTICE**

*College of Professional Programs*

**CRJ 100 INTRODUCTION TO CRIMINAL JUSTICE**

3 credits. This course is a comprehensive overview of U.S. criminal justice; its components, processes, and terminology as well as the relationships and issues internal and external to the criminal justice system. Historical and current context is investigated with regard to policies and problems in community relations, criminal law, law enforcement, courts, and

corrections.

**CRJ 111 LAW ENFORCEMENT PHYSICAL TRAINING**

1 credit. This course provides students with physical training and endurance techniques to meet the Maine Criminal Justice Academy physical testing entrance standards.

**CRJ 130 PHILOSOPHIES AND ETHICS OF SOCIAL CONTROL**

3 credits. Prerequisite: A passing score on both the reading and writing placement tests or successful completion of Eng 100 or Eng 101, or a non-degree seeking student. This course introduces fundamental principles of significant social control philosophies and the resulting major theoretical approaches toward explaining and controlling behavior. This investigation plays particular attention to sources of morality and ethical principles, as well as behavioral and ideological deviations and defiance. Students practice applying course information through their efforts in explaining a variety of behavioral examples.

**CRJ 201 CANADIAN CRIMINAL JUSTICE**

3 credits. Prerequisite: Crj 100. An exploration of the workings of the Canadian criminal justice system. From policing, through prosecution to sentencing and incarceration, students will discover all aspects of both the traditional justice system as well as alternatives to that system available in some parts of Canada. The Canadian system will also be compared to the American system.

**CRJ 215 DRUG POLICY**

3 credits. Prerequisite Crj 100. This course explores the discourses, representations and responses to drug use by the Criminal Justice System. A history of changing policy regarding various types of drug use is combined with an examination of current micro, mezzo and macro criminal justice responses to drug crises in both the US and other countries.

**CRJ 225 CRIMINAL JUSTICE ETHICS**

3 credits. Prerequisite: Crj 100. This course provides an exploration of the field of criminal justice ethics encompassing the history of justice and theories of mo-

rality and ethics. Special attention will be given to concrete ethical issues and dilemmas which are encountered regularly by participants in the major components of the criminal justice system.

**CRJ 230 RESEARCH METHODS IN CRIMINAL JUSTICE**

3 credits. Prerequisites: Crj 100, Eng 100/101. This course provides an introduction to the sociological study of crime and its attempted control. Specifically, issues such as definitions of crime, theories of crime, crime and the media, formal and informal reactions to criminal behavior, and the political economy of the US criminal justice system.

**CRJ 250 CRIMINAL LAW**

3 credits. Prerequisite: Crj 100. A study of the philosophy and application of criminal law. Specific case studies will be employed.

**CRJ 281 TOPICS IN CRIMINAL JUSTICE**

3 credits. Prerequisite: Crj 100. Specialized content not covered in other courses. Topics will be chosen from current timely issues within Criminal Justice and driven by student and instructor interest. Course can be repeated for credit under different content.

**CRJ 332 JUVENILE JUSTICE AND DELINQUENCY**

3 credits. Prerequisites: Crj 230 and Soc 230. This course will give the student an all-encompassing overview of juveniles as they relate to the criminal justice system. Theories, philosophies, and policies are examined in context of juvenile delinquency causation and reduction efforts.

**CRJ 350 CRIMINAL PROCEDURE**

3 credits. Prerequisites: Crj 100 and Crj 250. Course covers the Constitution in relation to criminal justice, focusing on law enforcement and the courts. Includes probable cause, the exclusionary rule, electronic surveillance, arrests and stops, the right to counsel, interrogation and the law of confessions, the Fifth, Sixth and Fourteenth Amendments, identification of suspects, entrapment, and the pretrial process.

**CRJ/SOC 358 DOMESTIC VIOLENCE**

3 credits. Prerequisites: Crj 230 and Soc 230. This course is designed to engage students in active learning about the topic of violence against women. Through a survey of literature on various issues within this topic as well as a service learning project, the current state of knowledge and recommended interventions will be connected with real life experiences in Aroostook County and beyond.

**CRJ/SOC 372 POLICE AND POLICING**

3 credits. Prerequisites Crj 230 and Soc 230. This course examines the social, structural and historical foundations of modern policing. Primary analysis is placed on the function of law enforcement in relation to crime prevention and control, and police-community relations.

**CRJ/SOC 376 PUNISHMENT AND CORRECTION**

3 credits. Prerequisites: Crj 230 and Soc 230. This course provides an overview of the history of punishment as a social action and the development of the prison as an institution. A review of the current state of US corrections and the expansion of penal institutions in the US over the past three decades is combined with various special topics within punishment and corrections.

**CRJ/SOC 377 RESTORATIVE JUSTICE AND COMMUNITY-BASED CORRECTIONS**

3 credits. Prerequisites: Crj 230 and Soc 230. The course focuses on restorative justice tenets and policy implications. The history of probation, parole and other community-based sentencing options are examined relative to their potential for increased use of restorative justice practices.

**CRJ/SOC 378 WOMEN AND CRIME**

3 credits. Prerequisites: Crj 230 and Soc 230. This course explores the discourses, representations and responses to female deviance and criminality in the Criminal Justice System. Particular attention is focused on portrayals of, and reactions to, women who commit non-traditional offenses, and the impli-

cations this has in the study of gender.

**CRJ 430 CRIME CONTROL POLICIES**

3 credits. Prerequisite: Senior Standing. In this course the student is exposed to analysis of ideologies, assumptions, and performance of crime control policies in the United States. Crime control policies and their implications will be examined from several perspectives: Administration, Police, Courts, and Corrections.

**CRJ/SOC 496 FIELD EXPERIENCE IN CRIMINAL JUSTICE/SOCIOLOGY**

3, 6 or 12 credits. Prerequisites: Junior or senior standing and instructor permission. Supervised field experience in a criminal justice or social service agency. Course can be taken for variable credit (3 or 6 hours) determined by hours completed at the field site. Course can be taken for 12 credit hours when student is completing full law enforcement academy training. Courses may be repeated for up to 18 credits.

**CRJ 499 CRIMINAL JUSTICE PORTFOLIO**

This is a non credit capstone assessment course. Students submit a senior portfolio with evidence illustrating proficiency in 8 program learning outcomes as well as a service learning experience. Co-requisite SOC 430.

**ECOLOGY**

*College of Arts & Sciences*

**ECY 324 PALEOECOLOGY**

3 credits. Prerequisites: Bio 113 or Gey 114 or Gey 115. A lecture course which presents an introduction to the study of how and where plants and animals lived in the past. Three lecture hours per week.

**ECY 355 GENERAL ECOLOGY**

4 credits. Prerequisite: Bio 200. A lecture and laboratory course which presents an introduction to evolutionary ecology, physiological ecology, population ecology, community ecology, and ecosystem ecology.

## ECONOMICS

*College of Professional Programs*

### **ECO 100 CONTEMPORARY ECONOMICS**

3 credits. A one-semester introductory course in economics for non-majors. The course focuses on current controversial economic issues, teaches the basic economics required to understand each issue and debates at least two currently suggested solutions. Some of the problems the course will address are inflation, poverty and inequality, regulation or deregulation, balanced budgets and budget deficits, economics of nuclear war, wage and price controls, and supply-side economics. General Education Curriculum option.

### **ECO 207 MACRO AND MICRO ECONOMICS**

3 credits. Fundamental principles of capitalist macroeconomics including growth and recession, inflation, unemployment, the role of government regulation, economic development, and trade. Micro topics include supply and demand, market structure, and market failure.

## EDUCATION

*College of Professional Programs*

### **EDU 152 INTRODUCTION TO EDUCATION**

3 credits. Prerequisite: none. A study of the psychological, sociological, and historical foundations of education and an examination of current educational trends, policies, and programs. Areas of study include teaching as a career, educational aspects of diversity, multiple intelligences and teaching strategies, forms of assessment, proficiency-based education, and an introduction to state and national standards. Fee.

### **EDU 153 FOUNDATIONS OF EDUCATION**

3 credits. Prerequisite: Edu 152 or instructor permission. A study of the social, political, philosophical, economic, and legal foundations of contemporary education and an examination of current educational trends, policies, and programs. Areas of study include teaching as a career, school laws, governance of schools, school problems, educational

ideologies, and development of an educational philosophy. This course requires the completion of a semester-long clinical field experience. Fee.

### **EDU 210 INTRODUCTION TO PEDAGOGY**

3 credits. Prerequisite: EDU 152 and 153. This course builds foundational knowledge of learning, human development and motivation through exploration of theories and principles. Students will gain knowledge of multiple learning strategies, instructional models, classroom management techniques, and apply theoretical knowledge and skill in the planning of lessons in the context of a larger unit of instruction.

### **EDU/SED 222 GUIDING POSITIVE BEHAVIOR**

3 credits. This course focuses on instructional models and methods for modifying student misbehavior. Characteristics of students with behavioral challenges and interventions will be explored. Student-centered preventative strategies with an emphasis on improving social skills are emphasized. Collaborative teaming, family involvement, and culturally responsive teaching approaches are discussed.

### **EDU/SED 232 LANGUAGE DEVELOPMENT IN EXCEPTIONAL LEARNERS**

3 credits. This course will provide students with an understanding of language development from birth to early adulthood (both typical and atypical) and the effects of language delays and disorders on cognitive/affective performance. Theory and practical activities will provide a context for working with children with exceptionalities in school settings.

### **SWK/EDU 250 CHILD WELFARE - APPLICATIONS FOR EDUCATION & SOCIAL WORK**

3 credits. This course is designed as an introduction to human services with children, youth, and families with emphasis on the education and social work settings. The concepts of child abuse and neglect are introduced. Service learning and child observation techniques will be used to review child welfare services and methods.

### **EDU 261 EDUCATIONAL TECHNOLOGY IN THE CLASSROOM**

3 credits. Practical experience incorporating technology into the instructional process and an examination of issues relevant to the role of technology in public schools. Educational software is used to develop, implement, and assess classroom lessons. Assignments include a broad range of creative technology use in educational settings.

### **EDU 302 TEACHING & LEARNING IN A PROFICIENCY-BASED SYSTEM**

3 credits. Prerequisites: EDU 152, 153, and 210. This course strengthens knowledge and application of instructional design in a proficiency-based system. We explore foundational methods for effective assessment design and grading, the complementary relationship of assessment and instruction, and creation of learning environments that foster self-reflection and growth. We cultivate the skills and dispositions of collaboration among colleagues.

### **EDU 305 DESIGNING AND MAINTAINING EFFECTIVE LEARNING ENVIRONMENTS**

3 credits. While grounded in current research and learning theory, this course is about methods and strategies for effective and efficient classroom management from three perspectives: behavioral, social responsibility, and instructional strategies.

### **EDU 311 ASSESSMENTS OF THE YOUNG CHILD**

3 credits. Explores developmentally appropriate and culturally responsive assessment strategies for physical, cognitive, social, and emotional development birth through eight years. Students will learn to utilize formal/informal instruments for formative/summative evaluations of children. Students will develop skills in using assessments to develop appropriate programs, environments, and activities in early childhood settings.

### **EDU/SED 322 INSTRUCTIONAL STRATEGIES IN SPECIAL EDUCATION**

3 credits. Prerequisites: Edu 310, Edu 387 and Sed 212. Explores methods of teaching students with special needs,

highlighting effective strategies such as direct/indirect instruction, interactive instruction, experiential learning, independent study and customized learning. Response to Intervention, Positive Behavioral Interventions, Assistive Technology, and Universal Designed Instruction will also be covered.

**EDU/SED 332 PROGRAM PLANNING AND CURRICULAR ADAPTATION FOR EXCEPTIONAL LEARNERS**

3 credits. Prerequisites: Edu 387, Sed 212. This course covers the organization and planning process for students with disabilities, including the IEP process, IEP development, and writing goals and objectives. Topics include writing behavioral objectives, instructional management, and specialized practices for accommodating and modifying the curricular needs of students with disabilities.

**EDU 341 INFANT TODDLER DEVELOPMENT**

3 credits. Examines the needs of infants/toddlers regarding the development of cognition, language, motor skills, social abilities, and family-child relations. Students will explore various theoretical perspectives on infant/toddler development and discuss current issues and challenges associated with the overall well-being of infants/toddlers. This course introduces developmentally appropriate practices for infant/toddler programs.

**EDU 348 SECONDARY METHODS OF INSTRUCTION IN BIOLOGY**

3 credits. The course focuses on strategies and approaches central to teaching secondary Biology content to 21st century learners. The goal will be to develop educators capable of meeting the diverse demands of teaching Biology effectively in grades 7-12. Challenges related to teaching and learning in the student's major field will be emphasized to facilitate improved instructional design, implementation and assessment.

**EDU 349 SECONDARY METHODS OF INSTRUCTION IN ENGLISH**

3 credits. Focuses on strategies and approaches central to teaching secondary English content to 21st century learners.

The goal will be to develop educators capable of meeting the diverse demands of teaching English effectively in grades 7-12. Challenges related to teaching and learning will be emphasized to facilitate improved instructional design, implementation and assessment.

**EDU/SWK 350 CHILDREN AND GRIEF AND ITS IMPACT ON LEARNING**

3 credits. The purpose of this class is to enrich students' exploration of their understanding of death and loss, as it relates to children, especially in the context of social work teaching and other human service professions.

**EDU 351 TEACHING ELEMENTARY READING**

3 credits. Designed to develop an in-depth knowledge of the current theory and practices involved in teaching reading in the elementary school. This class identifies instructional strategies for reading and the language arts, and examines classroom organizational and management techniques.

**EDU/SED 352 COLLABORATION & CONSULTATION IN GENERAL AND SPECIAL EDUCATION**

3 credits. Prerequisites: Edu 387. This course explores strategies, techniques and skills for effective communication, consultation, and collaboration with families, colleagues, and other professionals. Emphasis will be on developing an understanding of collaborative consultation, especially the Response to Intervention model, and cooperative teaching in educating students who may be at risk or with a disability.

**EDU 354 EARLY CHILDHOOD LITERACY**

3 credits. Early Childhood Literacy introduces research-based perspectives on early literacy acquisition during Birth-Grade 3. This course emphasizes the integration of oral language, vocabulary, alphabet knowledge, phonological awareness, word and print awareness, and writing for teaching young children's early language and literacy skills, considering both cognitive and sociocultural perspectives.

**EDU 357 CHILDREN'S LITERATURE**

3 credits. The study of all phases of children's literature for the elementary grades including the history, criteria for judging children's books, and knowledge of leading authors and illustrators. Participation in a practicum to develop theoretical applications.

**EDU 360 SCIENCE FOR THE YOUNG CHILD**

3 credits. This course examines the development of scientific concepts and scientific thinking processes in children from birth to eight years. Focusing on the constructivist theory, this course emphasizes the types of learning experiences which encourage the young child's exploration and development of the fundamental concepts, attitudes, and skills in science. Students will learn to facilitate young children's engagement in developmentally appropriate science activities.

**EDU 361 TEACHING SCIENCE IN THE ELEMENTARY SCHOOL**

3 credits. Emphasis placed upon examination of curriculum projects and trends in elementary science, selection and construction of teaching materials, study of selected topics in various science areas, research and use of science teaching strategies, and care and use of living and non-living science materials.

**EDU 364 CONTENT-AREA LITERACY**

3 credits. Designed to develop knowledge of current theory and methods in teaching literacy across the curriculum, with emphasis on strategy instruction in order to integrate the teaching of content-focused reading, writing, speaking and thinking skills with a focus on proficiency-based instruction. Required of all Secondary Education majors.

**EDU 366 TEACHING MATHEMATICS IN THE ELEMENTARY SCHOOL**

3 credits. Prerequisites: Mat 166. Designed to acquaint students with the foundations of teaching mathematics and to explore content, strategies, materials, organizational structure, and assessment procedures.



**EDU 367 NUMERACY FOR THE YOUNG CHILD**

3 credits. This course introduces research-based perspectives of early numeracy acquisition during early childhood from birth to eight years. Students will explore theories of emergent numeracy and recommendations by the National Association for the Education of Young Children, the Maine Early Learning Guideline Standards, and the Common Core State Standards regarding numeracy learning. Students will learn developmentally appropriate numeracy instruction integrating mathematics content and methodology in the area of emergent numeracy.

**EDU 371 TEACHING SOCIAL STUDIES IN THE ELEMENTARY SCHOOL**

3 credits. This course examines objectives, methods, materials, and assessment techniques in social studies programs. Concepts, skills and values are emphasized through the construction of a teaching unit.

**EDU 372 SOCIAL STUDIES FOR THE YOUNG CHILD**

3 credits. Provides students with theoretical perspectives about developmentally appropriate experiences that help young children inquire about communities of the world, their history, and their backgrounds. This course emphasizes young children's social studies as a process that prepares individuals to live in groups and to develop systems that support democratic living.

**EDU 373 TEACHING SOCIAL STUDIES IN THE SECONDARY SCHOOL**

3 credits. The student will create instructional plans in history, the social sciences, and interdisciplinary topics such as multicultural and controversial issues, with an emphasis on concepts, skills, and values. Clear goals, selected materials, and a variety of methods and assessments will be used in the development of a unit.

**EDU/PHE 376 TEACHING HEALTH AND PHYSICAL EDUCATION IN THE ELEMENTARY SCHOOL**

3 credits. Prerequisites: Psy 100. Methods and techniques in teaching health and physical education including lesson and program planning, observation

and demonstration lessons, evaluation techniques, and experiences in teaching. Stress is on the three areas basic to school health education.

**EDU 378 CREATIVITY IN THE CLASSROOM: ARTS-INTEGRATED CURRICULUM**

3 credits. Examines theories on creativity, creative arts, and creative people. Students will learn how to utilize materials and media used in creative arts to facilitate creative, artistic, and playful learning which can be applied to different subjects including but not limited to literacy, mathematics, science, and social studies in educational settings. This course meets the Creative Arts requirement of Endorsement 081.

**EDU 379 SECONDARY METHODS OF INSTRUCTION IN MATHEMATICS**

3 credits. Focuses on strategies and approaches central to teaching secondary mathematics content to 21st century learners. The goal will be to develop educators capable of meeting the diverse demands of teaching math effectively in grades 7-12. Challenges related to teaching and learning in the student's major field will be emphasized to facilitate improved instructional design, implementation and assessment.

**EDU/Sci 382 STEM**

3 credits. Prerequisites: permission of instructor. Students will deliver science, technology, or engineering activities with youth in local out of school/after school or in-school learning environments. Students will receive specialized training in experiential learning, youth development and risk management, and will also be trained to use prepackaged curricula and materials (provided). Evaluation of the experience for both students and the youth they serve will be expected.

**EDU 387 TEACHING STUDENTS WITH SPECIAL NEEDS IN INCLUSIVE CLASSROOMS**

3 credits. Prerequisite: permission of instructor. This course focuses on teaching students with special needs in general education classrooms. Understanding the nature and characteristics of learning and behavior problems, instructional strategies, differentiated learning, education

regulations, and modifications for specific categories of disability are covered.

**EDU 389 SPECIAL TOPICS IN EDUCATION**

1-6 credits. Prerequisite: permission of instructor. An elective course covering an Education topic or allowing extended study such as curriculum design in a content area under the guidance of an appropriate faculty member.

**EDU/ENG 393 WRITING THEORY AND PRACTICE**

3 credits. Prerequisite: Eng 121. Introduction to Composition Theory and Practice with an emphasis on middle, secondary, and college pedagogy, and one-on-one writing center consultations. Study of scholarship on writing, rhetoric, the teaching of writing, and writing center theory and practice with a focus on informed teaching and tutoring practice.

**EDU 395 PRACTICUM IN EDUCATION**

3 credits. Prerequisite: Semester prior to Edu 495; permission of instructor. Observation and participation including sequential teaching in a K-12 setting in preparation for student teaching.

**EDU 396 FIELDWORK IN TEACHING PHYSICAL EDUCATION**

3 credits. Twenty (20) hours of actual teaching and supervision of youngsters in a physical education setting at the elementary and/or secondary level.

**EDU/FRE 401 APPROACHES TO FRENCH GRAMMAR AND COMPOSITION**

3 credits. Prerequisite: permission of the instructor. This course can be taken either as an advanced French course or an education course. It meets the performance standards developed by the American Council on the Teaching of Foreign Language (ACTFL) approved by NCATE, and the goals of the Canadian Maritimes document, Foundation of the Atlantic Canada French Immersion Curriculum. It focuses on the acquisition and/or review of French grammar and its application in writing while at the same time teaches students the best practices for teaching French grammar and composition.

**EDU/SED 490 CAPSTONE IN  
TEACHER EDUCATION**

2 credits. Prerequisite: Concurrent with EDU 495 or permission of instructor. This capstone culminating experience for Education majors will focus on integrating knowledge and reflection insights garnered from their core professional educational and field experiences. Contemporary education issues and pedagogical challenges will be examined in preparation for career exploration. Students will complete a professional portfolio and initiate employment search activities.

**EDU 495 STUDENT TEACHING**

12 credits. Prerequisite: please see Eligibility for Student Teaching. Fifteen weeks of observation and teaching under supervision of cooperating teacher and university supervisor. Special workshops, conferences, and group discussions are held to provide assistance to student teachers.

**ENGLISH**

*College of Arts & Sciences*

**ENG 100 INTRODUCTION TO COLLEGE  
READING & WRITING**

4 credits. Prepares students for reading and writing in subsequent college-level courses, with emphasis on reading a variety of texts and writing brief essays. Students strengthen essentials of their writing process; collaborative learning is encouraged. Upon receipt of a C- or higher grade, students receive General Education credit; however, a passing grade lower than a C- requires enrollment in Eng 101.

**ENG 101 COLLEGE COMPOSITION**

3 credits. Prerequisite: Appropriate placement score or successful completion of Eng 100. The first part of a two-semester sequence in writing, reading, and critical thinking. Emphasis on expository prose, including rhetorical strategies such as observation, explanation, and persuasion. Development of awareness and refinement of the student's own writing process. Some attention to grammar and syntax, as warranted by student writing.

**ENG/ART 116 INTRODUCTION TO FILM**

3 credits. An examination of motion pictures as a fine art medium. Students will write about, read about and discuss film as an art form, a business, and a mode of expression. Students will learn how to critique film and understand the general makeup of a film production: cinematography, screenplay, acting, directing, etc.

**ENG 121 COLLEGE COMPOSITION II**

3 credits. Prerequisite: Eng 100 with a grade of C- or higher OR Eng 101. Further study of exposition and argument, as employed in various academic disciplines. Systematic instruction in academic writing and thinking beyond the level expected in College Composition, including summary and response to texts, generation and evaluation of arguments, synthesis of different sources, and research methods.

**ENG 151 INTRODUCTION TO LITERATURE**

3 credits. Prerequisite: Eng 100 with a grade of C- or higher OR Eng 101. An introduction to understanding and interpretation of diverse literary texts in context. Some attention to literary techniques, critical perspective, and genre conventions. The course will include introduction in writing critical essays.

**ENG 211 INTRODUCTION TO CREATIVE WRITING**

3 credits. Prerequisite: Eng 100 with a grade of C- or higher OR Eng 101. An introduction to the basic principles and practices of writing stories, poems, essays, and plays. Emphasis on selecting strong subjects, developing materials from life and from the imagination, and using fresh, exact details. A student may submit a portfolio of writing to the English faculty and request a waiver of Eng 211.

**ENG 240 MEDIEVAL AND EARLY MODERN  
LITERATURES AND CULTURES**

3 credits. Prerequisite: Eng 151. Survey of literature in English from the Anglo-Saxon period through the 17th century in both England and the Americas. Emphasizes the formation of major genres in the Middle Ages and the Re-

naissance as well as indigenous literatures prior to colonization and settlement.

**ENG 241 ENLIGHTENMENT AND THE RISE OF AN-  
GLO-AMERICAN LITERATURES AND CULTURES**

3 credits. Prerequisite: Eng 151. Survey of Anglo-American literature emphasizing generic, cultural, and political developments in a trans-Atlantic context. Readings in autobiography, travel and slave narratives, lyric, narrative and mock-epic poetry, the essay and the novel.

**ENG 242 MODERN AND CONTEMPORARY  
ANGLO-AMERICAN LITERATURES AND CULTURES**

3 credits. Prerequisite: Eng 151. Survey of realist, naturalist, modernist, and postmodernist literary movements in the context of industrial revolutions, imperialism, migration, and urbanization. Attention to the manner in which literature engages questions of national and individual identity, as well as racial, sexual, and ethnic difference.

**ENG 259 CONTEMPORARY WORLD LITERATURE**

3 credits. Prerequisite: Eng 151. An introduction to and survey of contemporary world literature. Particular attention given to postcolonial authors of the Caribbean, Africa, and the Indian sub-continent. Topics may include magical realism, the relationship of indigenous authors to metropolitan culture centers, postmodern and postcolonial identity, nationalism, and contemporary critical approaches to non-Western literature.

**ENG 300 MAJOR AUTHORS**

3 credits. Prerequisite: Eng 151 or equivalent. Advanced study of major and influential authors from various cultures and backgrounds. Specific course contents will vary by semester and instructor and may emphasize literary figures and movements, historical and cultural contexts, or different genres and forms. Course is repeatable for a maximum of 6 credits.

**ENG 308 STUDIES IN SHORTER FICTION**

3 credits. Prerequisites: Eng 151, 211, or equivalent. Consideration of theory and practice in shorter fiction. Reading and

analysis of short stories and novellas. Focus varies, and may include development of the short story, experimental short stories, or specific authors.

#### **ENG 309 STUDIES IN THE NOVEL**

3 credits. Prerequisite: Eng 151. Consideration of the theory and practice of novels, through reading and analysis. Focus varies and may include origins of the novel, sentimentality and the novel, or the historical novel. Course may be repeated for total of 6 credits provided the topics are different

#### **ENG 310 STUDIES IN POETRY**

3 credit. Prerequisite: Eng 151. Consideration of the theory and practice of poetry, through reading and analysis. Focus varies and may include poetry of a particular genre (sonnet, lyric), subject matter (war, political, pastoral), or a time and place (metaphysical poetry). Course may be repeated for total of 6 credits provided the topics are different

#### **ENG 311 POETRY WORKSHOP**

3 credits. Prerequisite: Eng 211. A workshop in which students write, read, and discuss poetry. Course may be repeated for a total of 6 credits provided the topics are different.

#### **ENG 312 FICTION WRITING WORKSHOP**

3 credits. Prerequisite: 3 credits. Prerequisite: Eng 211. A workshop in which students write, read, and discuss fiction. Course may be repeated for a total of 6 credits provided the topics are different.

#### **ENG 313 CREATIVE NONFICTION WORKSHOP**

3 credits. Prerequisite: Eng 211. Extensive writing and reading of literary non-fiction such as memoir, personal essay, narrative essay, literary journalism, travel writing, science writing, and nature/environmental writing. Course may be repeated for a total of 6 credits provided the topics are different.

#### **ENG 314 SCREENWRITING WORKSHOP**

3 credits. Students will study the basic fundamentals of screenwriting: character and plot development, dialogue, and conflict. Emphasis upon learning the 3-art structure of screenplays, the Set-up, the

Main Conflict and Resolution. Course will include conversations with various actors, directors, and producers. Final project will entail the production of a short film under the guidance of a noted director of photography.

#### **ENG/ART 316 CONTEMPORARY FILM**

3 credits. Advanced study in contemporary film. Films screened will range from 1970 to present day. This course is a topics course and may be repeated for a total of six credits provided the topics are different.

#### **ENG 355 STUDIES IN EARLIER ENGLISH LITERATURE**

3 credits. Prerequisite: Eng 151. Advanced studies in the literature of England prior to 1789. Individual semester offerings may focus on literature of Medieval England, the Renaissance, or the Enlightenment, when recognizably modern cultural arrangements developed in England and its colonies. Attention to the intersection of politics, aesthetics, and social traditions, as well as generic forms such as the epic, Renaissance and 18th century drama, lyric poetry, the pastoral, and satire.

#### **ENG 356 STUDIES IN NINETEENTH-CENTURY BRITISH LITERATURE**

3 credits. Prerequisite: Eng 151. Advanced studies in the literature of Britain prior to the Romantic Revolution (c.1789) through the reign of Queen Victoria. Individual semester offerings may focus on Romantic or Victorian poetry, the Gothic or Victorian novel, changing concepts of the self and nature, and the growth of industrialization and imperialism. Major writers may include Blake, Wordsworth, and Keats; Tennyson and Browning; Austen, the Brontes, Dickens and Hardy.

#### **ENG 358 STUDIES IN AMERICAN LITERATURE BEFORE 1900**

3 credits. Prerequisite: Eng 151. Advanced studies in American literature prior to the First World War. Topics may include the evolution of a distinctive American literature, slave narratives, poetry, and topics such as the emergence

of Transcendentalism, westward expansion, and industrialization and increased economic and class tension. Authors may include Bradstreet, Crane, Dickinson, Dreiser, Emerson, Hawthorne, Jacobs, Melville, Poe, Stoddard, Stowe, Twain, and Whitman, depending upon the focus in any given semester.

#### **ENG 359 STUDIES IN TWENTIETH-CENTURY AMERICAN LITERATURE**

3 credits. Prerequisite: Eng 151. Advanced studies in American literature following the First World War, the time of the nation's rise to status as a world power and the parallel ascendance of its literature. Topics may include realism and naturalism, modernist poetry, industrialization and increased economic class tensions, the emergence of regional and popular literatures, the modern novel, and postmodern literary and cultural developments. Authors may include Fitzgerald, Faulkner, Frost, Hemingway, Morrison, Olds, Plath, Pynchon, Rich, Steinbeck, and Walker.

#### **ENG 360 LITERATURE OF THE SEA**

3 credits. Prerequisite: Eng 151. The sea has long been viewed by Western civilization with a mixture of mysticism, fascination, and dread. Writers (and cultures) have viewed it as a source of terror and a threat to the known; we impress our greatest, most primal fears upon the ocean (*Jaws*), as well as our curiosity (*Darwin's Voyage of the Beagle*) and our hopes for salvation (*Moby Dick*). Study of a wide range of genres and authors, including Homer, Poe, Thoreau, Melville, Walcott, and Linda Greenlaw.

#### **ENG 361 CRIME AND PUNISHMENT**

3 credits. Prerequisite: Eng 151 or its equivalent. This course examines the development of crime, criminality, and punishment in Anglo-American culture during three distinct periods: seventeenth century England, Victorian England, and Depression-era America, with a brief (but vital) detour into Dostoevsky's nineteenth-century Russia. We shall interrogate how crime and criminality came to be defined over time, along with

how notions of justice and punishment (or the lack thereof) found representation in literature. We will examine plays, novels, coney-catching pamphlets, and penny-dreadfuls, as well as some literary theory concerning the development of the criminal within the modern capitalist system. Texts to include: Richard Wright's *Native Son*, John Marston's *The Dutch Courtesan*, Dickens' *Oliver Twist*, and, of course, Dostoevsky's *Crime and Punishment*. Students are required to participate in Blackboard online discussion forums.

**ENG 367 STUDIES IN SHAKESPEARE**

3 credits. Prerequisite: Eng 151. Study of selected plays of Shakespeare, approached from various critical and cultural perspectives. Topics may include Shakespeare and the formation of the individual, cross-dressing and disguise, kingship and revenge, Elizabethan theatrical conventions, and recent film productions. Works by other Renaissance playwrights may be addressed.

**ENG 368 STUDIES IN RENAISSANCE DRAMA**

3 credits. Prerequisite: Eng 151. A survey of English drama (1590-1630) and its cultural contexts, with emphasis on playwrights other than Shakespeare. Topics may include dramatic genres and their social/political implications; constructions of gender and sexuality in dramatic contexts; imperialism and the state; city comedy and the rise of capitalism.

**ENG 370 MAINE WRITERS**

3 credits. Prerequisite: Eng 151. Reading and discussion of the works of Sarah Orne Jewett, E.A. Robinson, E.B. White, May Sarton, Cathie Pelletier, Richard Russo, Monica Wood, Elizabeth Strout, and others.

**ENG 372 LITERATURE AND FILM**

3 credits. Prerequisite: Art/Eng 116 or Eng 151. The course will examine the relationship between the word and image as it has evolved throughout the 20th and 21st centuries in various filmic and literary genres. Topics may include film noir and pulp fiction, women and film, adaptations, and detective film and fiction.

**ENG/PHI 374 TOPICS IN PHILOSOPHY AND LITERATURE**

3 credits. Prerequisite: Eng 151 or Phi 151. Comparative studies of philosophical and literary texts. Topics may include Literature and Environmental Ethics, studies in nature writing; Literature of Peace and Justice, studies of Thoreau, Gandhi, King and others; The Sixties, poetry and arts of the Beat Generation, and their descendants, influence of Eastern religions; Ethics, Literature and Society.

**ENG 376 NATIVE AMERICAN NARRATIVES**

3 credits. Prerequisite: Eng 151. Study of Native American literatures. Students will investigate oral (storytelling performances), ethnographic, and "literary" texts (poetry, novels), as well as how one can read, write about, and teach indigenous literatures in a non-colonizing way. Special attention to works by indigenous peoples of the Northeast.

**ENG 378 AFRICAN-AMERICAN LITERATURE FROM THE HARLEM RENAISSANCE TO THE PRESENT**

3 credits. Prerequisite: Eng 151. A study of representative works of African-American poets, novelists, essayists from 1920 to the present, including such writers as W.E.B. Dubois, Langston Hughes, Richard Wright, James Weldon Johnson, Zora Neale Hurston, Ralph Ellison, Toni Morrison, James Baldwin, Claude McKay, Paule Marshall, Alice Walker, and Ernest Gaines.

**ENG/PHI 388 LITERARY THEORY AND CRITICAL PRACTICE**

3 credits. Prerequisite: Eng 151. An introduction to literary theory with emphasis on its application to critical practice. Study of particular approaches may include structuralism, psychoanalysis, Marxism, deconstruction and post-modern theory, and feminism(s). Attention to the interdisciplinary nature of contemporary theory and its critique of the assumptions governing our interpretation of texts.

**ENG 391 STUDIES IN THE ENGLISH LANGUAGE**

3 credits. Prerequisite: Eng 151. A study of the development of the English language from its earliest known stage to present-day British and American English. Consideration of aspects of sound, word formation, syntax, and vocabulary; and of cultural influences on linguistic change and social attitudes affecting usage. The course will acquaint the student with some of the concerns of linguistics, etymology, and philology.

**ENG/EDU 393 WRITING THEORY AND PRACTICE**

3 credits. Prerequisite: Eng 121. Introduction to Composition Theory and Practice with an emphasis on middle, secondary, and college pedagogy, and one-on-one writing center consultations. Study of scholarship on writing, rhetoric, the teaching of writing, and writing center theory and practice with a focus on informed teaching and tutoring practice.

**ENG/ART 403 FILM SEMINAR**

3 credits. Prerequisite: Art/Eng 116. Advanced study in specific film genres, technologies, aesthetics, theory and criticism, or directors. Course may be repeated for a total of 6 credits provided the topics are different.

**ENG/ART 416 GREAT FILM DIRECTORS SERIES**

3 credits. Examining the filmographies of one Master Film Maker: Fritz Lang, Alfred Hitchcock, Jean-Luc Godard, Martin Scorsese, and others. Emphasizing an in-depth analysis of the director as auteur and theorist, and their understanding of the aesthetics of film language. Screening representative films, lectures, written assignments. May be repeated in differing topics. Studio fee.

**ENVIRONMENTAL STUDIES**

*College of Arts & Sciences*

**ENV 110 INTRODUCTION TO ENVIRONMENTAL SCIENCE**

3 credits. Prerequisite: College-level science placement or science practicum as a co-requisite or a non-degree seeking student. A lecture course which presents an introduction to the scientific study of our environment. Topics include basic

ecological principles, human population dynamics, environmental health, biological resources, physical resources and pollution, resource economics, and waste. Three lecture hours per week. Offered spring semester.

**ENV 120 METEOROLOGY**

3 credits. Prerequisite: College-level science placement or science practicum as a co-requisite or a non-degree seeking student. Students will learn about basic weather systems (highs, lows, fronts, etc.). Students will also learn how to identify cloud formations and interpret what they mean in terms of upcoming weather. Emphasis will be placed on the weather of northern Maine.

**ENV 125 ENERGY**

3 credits. Prerequisite: College-level science placement or science practicum as a co-requisite or a non-degree seeking student. This course provides a general understanding of energy resources and use. Topics include energy transformations, measurement and electricity. A wide range of energy sources including fossil fuels, nuclear and alternatives will be presented. The goal of the course is to obtain a broad understanding of these and related issues. A previous science course is recommended.

**ENV 130 RENEWABLE ENERGY RESOURCES**

3 credits. Prerequisite: College-level science placement or science practicum as a co-requisite or a non-degree seeking student. This course provides a comprehensive overview of major renewable energy resources, including solar, wind power, hydropower, geothermal, hydrogen fuel cells, and biomass fuels. This course aims to help students understand basic concepts and principles on energy conservation and to evaluate environmental impacts of different forms of renewable energy resources.

**ENV 200 PRINCIPLES OF SUSTAINABLE AGRICULTURE**

3 credits. This course will cover ecological, economic, and political factors that impact sustainable agriculture. Case studies will be investigated in order to

illustrate the challenges, obstacles, and successes of transitioning to sustainable agriculture practices. An emphasis will be placed on fundamental sustainability components that support local farmers, economies, communities, and ecosystems.

**ENV 201 FOSSIL FUELS**

3 credits. Prerequisite: completion of science General Education requirements, including either Env 110, Env 125 or Env 130. This course provides the general understanding of geology-based energy sources (oil, coal, natural gas), which have been the dominant sources of energy during the last century and into the present.

**ENV 210 SOIL SCIENCE**

4 credits. Prerequisites: CHY 111, any college level chemistry, or instructor permission. Considers the physical and chemical properties of soil, as well as their development, classification, and management for environmental quality. Practical laboratory exercises provide hands-on experience quantifying physical properties and soil chemistry.

**ENV 220 INTEGRATED PEST MANAGEMENT**

3 credits. Students will develop abilities to apply a variety of information to pest management that optimizes effectiveness while minimizing negative impacts to humans, ecosystems or pest resistance. Economic thresholds, pest sampling and measurement, natural predators, biological control, conventional pesticides and case studies of local agriculture practices will be emphasized.

**ENV 301 CLIMATE CHANGE**

3 credits. Prerequisite: A passing score on the science placement test or successful completion of Sci 100 or a non-degree seeking student. This course provides the background to better understand global climate change and its implications for the environment and human societies. Scientific evidence of past climate conditions, with emphasis on the geological record of the Quaternary period. Basic oceanic, atmospheric, and glacial systems and feedbacks controlling global temperatures will be examined.

**ENV 302 BIODIVERSITY AND CLIMATE CHANGE**

3 credits. Prerequisite: Bio 112 or Env 110 or permission of the instructor. This lecture and discussion-oriented course presents information on current and future impact of climate change on biodiversity. Topics include range shifts, phenological changes, climate change modeling, impacts on Northern Maine ecosystems, impacts on economically important species, expansion of disease vectors, and conservation strategies.

**ENV 305 ENVIRONMENTAL CHEMISTRY**

4 credits. Prerequisites: Chy 122, Ecy 355, and Gey 112. A lecture and laboratory course which presents an introduction to selected instruments and instrumentation applicable to the measurement of physical and chemical properties of water germane to environmental issues. Required field trip(s). Three lecture hours and three laboratory hours per week. Lab fee.

**ENV 308 GIS I FUNDAMENTALS OF GIS**

4 credits. Prerequisite: A passing score on the science placement test or successful completion of Sci 100 or a non-degree seeking student. This course introduces students to basic concepts and techniques of digital mapping. Topics include location referencing methods, data collection techniques, spatial data models and structure, geodatabase creation and manipulation, basic spatial queries and problem solving with GIS.

**ENV 408 GIS II APPLICATIONS AND ADVANCED SPATIAL ANALYSIS**

4 credits. Prerequisite: Env 308. GIS II focuses on GIS applications such as geocoding, georeferencing, and CAD data conversion, and on advanced raster- and TIN-based spatial and 3D analyses such as digital terrain modeling, and surface analysis. GIS II also requires each student to work on a GIS project.

**ENV 495 INTERNSHIP**

4 credits. Prerequisite: Consent of the instructor. Work experience off and on campus in all subject areas offered in the Environmental Studies and Sustainability program. Internship supervised by a member of the faculty.

## EXERCISE SCIENCE

*College of Professional Programs*

### **EXS 101 INTRODUCTION TO EXERCISE SCIENCE**

3 credits. This course will cover the historical perspective of exercise science, allied health care professions, and the fitness industry. Course focuses on the disciplines of sport science, sports medicine, and rehabilitative therapy including alternative therapy methods. Other topics include professional organizations, position statements, various employment settings, and national and state certification and licensure.

### **EXS 210 GROUP EXERCISE INSTRUCTION**

3 credits. Students will be provided the opportunity for acquisition of practical skill and instruction methods in various group exercise activities. Emphasis is placed on physiological principles related to group exercise as well as choreography, safety and modification for diverse populations. Current group exercise trends and research are explored.

### **EXS 225 STRENGTH TRAINING AND CONDITIONING TECHNIQUES**

3 credits. This course is a comprehensive introduction to the basics of strength training and conditioning. Students will learn to develop, implement and assess the results of training programs for gaining strength, power and athletic performance.

### **EXS 246 INTRODUCTION TO ASSESSMENT**

4 credits. Students will develop knowledge, skills and abilities needed for basic assessments of the human body. The students will learn the signs and symptoms of common sport injuries. Three hours of lecture and two of labs per week. Fee.

### **EXS 274 STRUCTURAL KINESIOLOGY**

3 credits. Prerequisite: Bio 261 Study of the skeletal and muscular systems as it applies to physical education and athletic training activities. Mechanical analysis of basic motor patterns and sports skills.

### **EXS 340 PREVENTION AND EMERGENT CARE IN SPORT**

3 credits. This course will develop skills in the prevention and assessment of acute

care of athletic injuries, emergency planning, interaction with emergency medical service, etiology, signs and symptoms and common medical emergencies in sports including environmental and mental health emergencies. A BLS certification in first aid, CPR, and AED from the American Heart Association included. Fee.

### **EXS 342 ADVANCED ASSESSMENT**

4 credits. Prerequisites: Bio 261 and Exs 246. A lecture and laboratory course in which the students will develop the knowledge and skills needed to assess the human body. The students will develop a more in depth knowledge of the signs and symptoms of injuries to the physically active population. Fee

### **EXS 343 CORRECTIVE EXERCISE**

4 credits. Prerequisite: Exs 225 and Exs 246 with co-req Bio 262. Students will explore current trends in corrective exercise and analysis of those techniques and trends. Students will be given the opportunity to develop and implement plans for specific conditions. Three lecture hours and two laboratory hours per week. Fee.

### **EXS 375 PHYSIOLOGICAL ASSESSMENT AND EXERCISE PRESCRIPTION**

3 credits. Prerequisites: Exs 274, Exs 381 and concurrent enrollment in Exs 382. Course investigates physiological test selection, administration, and interpretation. Exercise prescription based on test results and interpretation is covered.

### **EXS 381 BIOMECHANICS**

3 credits. Prerequisite: Bio 261. An application of biomechanical principles to the analysis and teaching of motor activities. Fundamental motor skills and movement patterns, and specific physical education and sports activities are reviewed in detail. Current research findings and techniques are investigated.

### **EXS 382 PHYSIOLOGY OF EXERCISE**

3 credits. Prerequisites: Bio 261, Bio 262, Embraces study of human physiological reaction, regulation, and adaptation to exercise. Laboratory experiments serve to verify or refute hypotheses in problem-solving situations.

### **EXS 388 PRACTICUM IN EXERCISE SCIENCE**

3 credits. Prerequisite: permission of instructor. Student engages in an approved practical experience relating to exercise science. Students will analyze and integrate knowledge, skills, and abilities into actual client care supervised by qualified personnel.

### **EXS 405 EXERCISE SCIENCE CAPSTONE**

1 credit. Prerequisite: permission of instructor. Course will be an integration and refinement of experiences with the application of knowledge obtained in previous requirements. Theoretical case studies and problem solving scenarios are the basis upon which critical thinking and skill development are enhanced in preparation for employment and the certification exams. (Spring). Fee.

### **EXS 425 SCIENCE OF STRENGTH AND CONDITIONING**

3 credits. Prerequisite: Bio 261. The course examines the advanced methods and techniques associated with the design of strength and conditioning programs enhancing human performance in sport and fitness. This course is designed to enhance students' current level of knowledge in preparation for the National Strength and Conditioning Association (NSCA) Certified Strength and Conditioning Specialist (CSCS) certification.

### **EXS 487 ORGANIZATION AND ADMINISTRATION IN HEALTH CARE**

3 credits. This course will provide the student with the necessary knowledge and skills to manage an exercise science facility. Topics include personnel, program information, and financial resources management, facility design and planning, testing, computer-based record keeping, presentations, policy and procedure development, resumes and interview techniques.

### **EXS 496 FIELD WORK EXPERIENCE IN EXERCISE SCIENCE**

3-9 credits. Prerequisite: permission of instructor. Intended to be a meaningful experience under supervision and guidance that explores employment opportunities in student's emphasis area.

## FIRST-YEAR SEMINAR

*Interdisciplinary*

### **FYS 100 FIRST-YEAR SEMINAR**

1 credit. This course is designed to promote successful transition to the college environment; therefore, it is required of all students with fewer than 12 credit hours of coursework earned from an accredited college or university, exclusive of AP, CLEP or dual enrollment credit. Discussion and experiential learning help orient the student to all aspects of the campus and college milieu.

### **FYS 150 FIRST YEAR LEARNING COMMUNITY**

1-12 credits. Learning communities are variable credit courses, designed and organized around a theme or subject of inquiry that learners investigate through multiple disciplinary, interdisciplinary, and cross-disciplinary perspectives. Courses provide opportunities to connect personal, academic, and civic responsibilities by building critical thinking, communication, collaboration, and analytic skills. Courses may include seminar, discussion, or group projects along with traditional lectures and assignments.

## FRENCH

*College of Arts & Sciences*

### **FRE 101 FRANÇAIS ÉLÉMENTAIRE I: ELEMENTARY FRENCH I**

3 credits. Basic listening comprehension, speaking, reading, and writing skills with an emphasis on spoken French. Culture is an important component of the course. Recommended for students with no prior French language experience.

### **FRE 102 FRANÇAIS ÉLÉMENTAIRE II: ELEMENTARY FRENCH II**

3 credits. Continuation of Fre 101. Emphasis on French and French culture. Recommended for students with prior French language experience (i.e., high school coursework or lower level French language college credit).

### **FRE 201 FRANÇAIS INTERMÉDIAIRE: INTERMEDIATE FRENCH**

3 credits. Prerequisites: Fre 102 or permission of instructor. Intermediate level

conversation centered around communicative functions within a cultural background.

## GEOGRAPHY

*College of Arts & Sciences*

### **GEO 100 WORLD GEOGRAPHY**

3 credits. This course covers the basic geographical concepts and an overview of world regional geography. It will examine the physical, cultural, economic, and political elements within each region as well as international, interregional and intraregional relationships and the impact of culture, economic and political geography on these relationships.

### **GEO 101 INTRODUCTION TO HUMAN GEOGRAPHY**

3 credits. This course is an introduction to human geography. It will examine population, migration, folk and popular cultures, ethnic groups, religion, and economic and political development. The course compares cultures by focusing on cultural interaction, globalization and human relationships with each other and the environment.

## GEOLOGY

*College of Arts & Sciences*

### **GEY 112 FUNDAMENTALS OF GEOLOGY**

4 credits. Prerequisite: College-level science placement or science practicum as a co-requisite. The first semester of a two-semester lecture and laboratory course in geology, which serves as the prerequisite for upper level geology courses. The lecture presents a study of the earth and the processes that shape it. The laboratory includes identification of minerals and rocks, and mapping exercises. Three lecture hours and two laboratory hours per week. Lab fee.

### **GEY 114 HISTORICAL GEOLOGY - HISTORY OF LIFE**

3 credits. Prerequisite: Gey 112 or permission of the instructor. The second semester of a two-semester sequence that serves as a prerequisite for upper level geology courses. The course presents historical perspective of the history of the

earth, with an emphasis on the evolution of life as seen in the fossil record. An emphasis of the course is on the understanding and use of the geologic time scale. Three lecture hours per week.

### **GEY 115 HISTORIC GEOLOGY:**

#### **PLATE TECTONICS AND EARTH HISTORY**

3 credits. Prerequisite: Gey 112. The course teaches earth history in a framework of plate tectonics. Plate tectonic theory is covered. Tectonic evolution of the earth in each geological time period since its birth, including such as growth and breakup of major continents, birth and close of oceans, and construction of major mountain belts is examined.

### **GEY 212 MARINE GEOLOGY**

3 credits. Prerequisite: Gey 112. A lecture course which deals with the ocean shore and sea floor, and studies methods of examination, dating, and interpreting the history of ocean sediments. Three lecture hours per week.

### **GEY 213 ENVIRONMENTAL GEOLOGY**

3 credits. Prerequisite: Gey 112. The course examines the interaction of human activities with the evolving Earth. It addresses geological hazards caused by earthquakes, volcanoes, landslides, floods, and coastal erosion; environmental concerns with use of minerals, energy resources, and water; and environmental challenges such as waste disposal, groundwater and soil contamination, and natural resource management.

### **GEY 322 PALEONTOLOGY**

4 credits. Prerequisites: Bio 113 and Gey 112. A lecture and laboratory course which deals with the life of the past as that life is revealed in the fossil records. Laboratory activities are designed to illustrate the topics covered in the lecture. Three lecture hours and three laboratory hours per week. Lab fee.

### **GEY 353 SURFICIAL GEOLOGY**

4 credits. Prerequisites: Gey 112 and Gey 114 or Gey 115. This course covers the regolith overlying the bedrock of the earth's crust. It combines the sub disciplines of sedimentology, geomorphology, and surficial geology representing an in-

terdisciplinary study of the natural systems of the Earth's surface and includes elements of climatology, hydrology, glaciology, and geography.

**GEY 354 BEDROCK GEOLOGY**

4 credits. Prerequisite: Gey 112 and Gey 114 or Gey 115. The course covers major elements of bedrock geology, including petrology and petrography, sedimentation and stratigraphy, structural geology and structural analysis, and bedrock field methods. Lectures cover concepts, principles, and analytic methods, while exercises and fieldwork focus on hands-on examination and description of rocks and structures, and applications of analytic methods.

**HEALTH, PHYSICAL EDUCATION & RECREATION**

*College of Professional Programs*

**HPR 101 LIFELONG WELLNESS**

3 credits. Students will gain scientific evidence based knowledge and skills in assessing their wellness, practicing a healthy lifestyle, and setting and pursuing goals for a wellness behavior change. Focus will be on lifelong, primary prevention as a way to contribute to a richer quality of life.

**HISTORY**

*College of Arts & Sciences*

**HTY 115 WORLD CIVILIZATION I**

3 credits. Co-requisite: A passing score on the reading placement test or successful completion of Eng 100 or a non-degree seeking student. A survey of world civilization from the dawn of civilization through the 16th century. An emphasis will be placed on the political, social, intellectual, and economic cultures of China, India, MesoAmerica, the Middle East, and Sub-Saharan Africa.

**HTY 116 WORLD CIVILIZATION II**

3 credits. Co-requisite: A passing score on the reading placement test or successful completion of Eng 100 or a non-degree seeking student. A survey of world history from the voyages of exploration

by the Europeans through the present. Special emphasis will be placed on 20th century Africa, Asia, and Latin America and their political, military, social, cultural, and economic interactions with the West.

**HTY 161 UNITED STATES HISTORY I**

3 credits. Co-requisite: A passing score on the reading placement test or successful completion of Eng 100 or a non-degree seeking student. Surveys broad themes and developments in United States history from the pre-contact period through the Civil War and Reconstruction.

**HTY 162 UNITED STATES HISTORY II**

3 credits. Co-requisite: A passing score on the reading placement test or successful completion of Eng 100 or a non-degree seeking student. Surveys broad themes and developments in United States history from the Civil War and Reconstruction through the present.

**HTY 184 ZOMBIES IN AMERICAN POPULAR CULTURE**

3 credits. This course examines the African origins of Voodoo Zombies, their entrance into American popular culture and their transformation into today's flesh-eaters. Topics context include American and Caribbean slavery, American Imperialism, the Cold War and fear of pandemics. The overarching themes are cultural diffusion, colonialism, imperialism and globalization.

**HTY 301 MEDIEVAL EUROPE**

3 credits. Prerequisite: 100- or 200-level history course. Examines major political, social, and economic developments in Europe from fifth century to the sixteenth century. Topics include the fall of Rome, manorialism, feudalism, and the transition to early modern Europe. Fills history concentration requirements for European and pre-modern history.

**HTY 313 EARLY MODERN EUROPE**

3 credits. A study of European civilization from the late 15th century through the French Revolution, with an emphasis on the rise of the modern state, the

pre-industrial economy, society and secularization. This course fills history concentration requirements for European history.

**HTY 314 EGYPT, ISRAEL AND THE ANCIENT NEAR EAST**

3 credits. Surveys ancient civilizations in Egypt, Israel and the Ancient Near East. The class will emphasize the development of urban-based cultures, religion, philosophy, gender and sexuality. This course fills history concentration and other departmental requirement for non-western and pre-modern history.

**HTY 315 GREECE, ROME AND THE EARLY CHURCH**

3 credits. Surveys ancient civilizations including Greece and Rome, and the development of the Early Church. This course will emphasize the development of urban-based cultures, religion, philosophy, gender and sexuality. This course fills history concentration requirement and other departmental requirement for pre-modern history.

**HTY 318 MODERN EUROPEAN HISTORY**

3 credits. Prerequisite: 100-level history course, or permission of instructor. Examines significant developments in European history since the French Revolution, including the birth and influence of modern nationalism, key intellectual and ideological trends, and the World Wars.

**HTY/POS 347 RUSSIA FROM KIEV TO PETER THE GREAT**

3 credits. An in-depth study of the political and economic culture of the unique Russian experience. Emphasis is upon "westernization," territorial expansion and empire building, the development of absolutism, and the undercurrent of rebellion. This course fills history concentration and other departmental requirements for non-western or European history.

**HTY 350 U.S. ENVIRONMENTAL HISTORY**

3 credits. Prerequisite: 100- or 200-level history course. Examines relationships between environment and culture.



Considers Native American land use as well as the impact on natural resources of colonization, westward expansion, and industrialization. Analyzes conservation and environmental movements. Fills history concentration requirements for United States history.

**HTY 368 ACADIAN AND FRENCH CANADIAN FOLKLORE**

3 credits. Thematic survey of the folklore, in a historical context, of the first French settlers in North America. The history of New France (Acadia and Quebec) is closely tied to New England and the Native peoples of the region. It had a profound impact on the history of North America. Study of geography, material culture and oral culture within their American and European context.

**HTY/POS 370 TOPICS IN NON-WESTERN HISTORY**

3 credits. This is a basic introductory examination of a specialized field in African, Asian, or Latin American History. Specific topic will be listed with the course title when offered. This course fills history concentration and other departmental requirements for non-western history.

**HTY/POS 371 INTERNATIONAL RELATIONS AND MODERN CONFLICTS**

3 credits. Prerequisite: 100- or 200-level history course. Examines various types of world conflicts during the modern period. May include, but is not limited to, one or more of the following: diplomatic, military, ethnic, racial, class, and religious conflicts.

**HTY 375 HISTORY OF MAINE**

3 credits. Examines the major social, cultural, economic, and political trends of Maine history. When possible, it will focus on the lives of ordinary people. Fills history concentration requirements for upper level electives in history.

**HTY/POS 377 MODERN CHINA**

3 credits. A survey of the history of China from the nineteenth century to the present. Three important issues are Chinese culture, the cultural conflict with the West, and, modernization. This course fills history concentration and

other departmental requirements for non-western history.

**HTY 400 DISCOVERING AND INTERPRETING LOCAL HISTORY**

3 credits. Local history places local events in the context of larger occurrences and recreates the history of the ordinary person. This course investigates local history sources and considers the ways in which local records may be used to illuminate large historical themes.

**HTY 423 COLONIAL SOCIETY AND THE AMERICAN REVOLUTION**

3 credits. Prerequisite: 100- or 200-level history course. Analyzes pre-contact period through the aftermath of the Revolution. Emphasizes colonial social structure, origins and significance of violence, views of liberty, equality, and republican government, and participation of ordinary persons in the Revolution. Fills history concentration requirements for United States history.

**HTY 439 THE VIETNAM WARS**

3 credits. Prerequisite: 100-level history course, or permission of instructor. This course examines the origins and consequences of the Vietnam Wars, emphasizing Vietnamese history and culture, French colonization, World War II, and the Cold War. Also analyzes the Vietnam War in U.S. politics and popular culture.

**HTY 451 HISTORY OF THE OLD SOUTH**

3 credits. Prerequisite: 100-level Hty or permission of instructor. Examines the U.S. South from pre-contact through the Civil War and Reconstruction. Themes include modernity, sectionalism, and regional identity. Topics include Native American societies, colonial politics and social structure, the origins of slavery, antebellum politics, slavery and the plantation economy, plain folk, and women.

**HTY 452 HISTORY OF THE NEW SOUTH**

3 credits. Prerequisite: 100-level Hty or permission of instructor. Examines the U.S. South from the Civil War and Reconstruction through the present. Themes include change and continuity between Old South and New South, Civil War memory, and regional iden-

tity. Topics include Jim Crow, populism, women, Appalachia, industrialization, the New Deal and World War II, and the Civil Rights Movement.

**HTY 453 SLAVERY IN LATIN AMERICA**

3 credits. Prerequisite: 100-level Hty or permission of instructor. Examines slavery in Latin America from Spanish and Portuguese colonization in the sixteenth century through abolition in the nineteenth century. Topics include Native American and African labor, the slave trade, the economics of slavery, the Roman Catholic Church, Atlantic World revolutions, slave resistance and rebellion, and legacies of slavery.

**HTY 454 SLAVERY IN THE UNITED STATES**

3 credits. Prerequisite: 100-level Hty or permission of instructor. Examines the origins and consolidation of slavery in the United States from the colonial period through its demise in 1865. Themes and topics include indentured servitude, the idea of race, the economics of slavery, slave culture and slave resistance, and slavery's role in causing the Civil War

**HTY 456 FILMS OF THE COLD WAR**

3 credits. Prerequisite: 100-level Hty or permission of instructor. Examines popular films as artifacts which both reflected and reinforced Cold War ideologies. Topics include film noir, gender roles, fear of communism, fear of atomic attack, and U.S. foreign policy during several distinct phases of the Cold War.

**HTY/ANT 471 PREHISTORY OF NORTHEASTERN NORTH AMERICA**

3 credits. Examines the history of northeastern North American native peoples from first evidence to the arrival of Europeans to contemporary Tribes. Emphasis is placed on theories of initial human colonization, glacial and postglacial adaptation, changes in social structure, and interaction with Europeans. Examines contemporary controversy regarding Native sovereignty and self-determination.

**HTY 489 SPECIAL TOPICS IN HISTORY**

3 credits. Prerequisite: 100- or 200-level history course, or permission of the instructor. Occasional areas and subjects

of special interest to students of history and other academic and professional disciplines. Depending on subject and approval, this course may fill European, United States, non-western or pre-modern history concentration requirements, or certain requirements in other concentrations or disciplines.

**HTY 491 SPECIAL TOPIC IN ANCIENT HISTORY**

3 credits. Covers a specialized topic in the ancient world taught at a senior seminar level. Special topics will be chosen each time the course is offered. Subjects may include Sexuality in the Ancient World, Early Church History, and other topics. This course fills history concentration and other departmental requirements for pre-modern history.

**HONORS**

*Interdisciplinary*

**HON 300 HONORS SEMINAR**

1-3 credits. Prerequisite: Eng 100 with a grade of C- or higher OR Eng 101 or approval of instructor. Seminar-style, problem-posing approach to a specific educational, cultural, or social issue (varying each semester) involving students, faculty, staff, and administration. Students select level of involvement. Course may be repeated and is open to all students.

**HON 421 HONORS SENIOR YEAR PROJECT**

3 credits. Prerequisite: approval of Honors Director. Students complete a thesis or service learning project either on or off campus in their major field of study or specific area of interest. Intended as self-directed projects under the supervision of a faculty advisor and the Director of the Honors Program. Students generally begin work in the fall and conclude the project in the spring semester with a campus presentation. May be repeated for an additional 3 credits at the Director's discretion.

**HUMANITIES**

*YourPace*

**HUM 103 CREATIVE DECISION MAKING**

3 credits. YourPace students only. This course involves the development of a creative solution to a historical, social,

ethnic, economic, technological, and/or geographic problem. Emphases include one's own thought process, bias, critical-thinking methodologies and critical-thinking standards, information gathering, and analysis.

**MATHEMATICS**

*College of Arts & Sciences*

**MAT 101 BASIC STATISTICS**

3 credits. Prerequisite: College-level math placement or math practicum as co-requisite. Data collection through sampling and experimentation, ethics of sampling experimentation, bias and precision, graphical and numerical summaries of data, confidence statements, association and causation between two variables, probability.

**MAT 111 PRINCIPLES OF MATHEMATICS I**

3 credits. Prerequisite: College-level math placement or math practicum as co-requisite. A course designed for Elementary Education majors in which the real numbers and its sub-systems are developed. Elementary Education majors only.

**MAT 112 PRINCIPLES OF MATHEMATICS II**

3 credits. Prerequisite: College-level math placement or math practicum as co-requisite. Elementary Education majors only. Continuation of Mat 111 with emphasis on selected topics from algebra and geometry. Offered spring semester.

**MAT 117 COLLEGE ALGEBRA**

3 credits. Prerequisite: College-level math placement or math practicum as co-requisite. Mat 117 focuses on variables, functions, and equations involving functions. Topics include general concepts of functions and properties of power, quadratic, polynomial, rational, exponential, and logarithmic functions, as well as corresponding equations.

**MAT 121 PRE-CALCULUS**

4 credits. Prerequisite: Mat 117 or equivalent. Polynomial functions, rational functions, exponential functions, and logarithmic functions are covered. Special emphasis is placed on the trigo-

nometric functions. Other topics include composite and inverse functions, and analytic geometry.

**MAT 131 CALCULUS I**

4 credits. Prerequisite: Mat 121 or equivalent. Differentiation and integration of algebraic and transcendental functions with numerous applied problems.

**MAT 132 CALCULUS II**

4 credits. Prerequisite: Mat 131. A continuation of Mat 131 including methods of integration, indeterminate forms, infinite numerical and function series, power series, and Taylor and Maclaurin series.

**MAT 140 MATHEMATICS FOR BUSINESS**

3 credits. Prerequisite: Mat 117 or equivalent score on placement test. Mathematical analysis for economics, accounting, finance, and management. Graphing, exponential and logarithmic functions, mathematics of finance, derivatives and optimization.

**MAT 166 CONCEPT-BASED MATHEMATICS FOR ELEMENTARY CLASSROOM TEACHERS**

3 credits. Prerequisite: sequenced in first semester of enrollment in the College of Education. Designed to strengthen foundations, conceptual understanding, procedural skill/fluency, and ability to apply math to solve problems. Shifts required by Common Core standards are promoted through deeper focus on concepts, skills and problem solving in addition/subtraction, multiplication/division, whole numbers/fractions, ratios/proportional relationships, early algebraic expressions/equations, rational numbers, and linear algebra and functions.

**MAT 201 PROBABILITY AND STATISTICS I**

3 credits. Prerequisite: Mat 117 or equivalent. Descriptive statistics, probability, random variables, mathematical expectation, binomial, normal and t-distributions, confidence intervals, hypothesis testing.

**MAT 202 PROBABILITY AND STATISTICS II**

3 credits. Prerequisite: Mat 201. Linear regression, correlation, multiple regression, chi-square tests, experimental design, analysis of variance, non-parametric statistics.

**MAT 231 CALCULUS III**

4 credits. Prerequisites: Mat 132 and Mat 274. Multi-variable calculus in finite-dimensional Euclidean spaces and its mathematical applications in differential topology and geometry, geometric analysis, and partial differential equations. Syllabus may vary.

**MAT 233 ORDINARY DIFFERENTIAL EQUATIONS**

4 credits. Prerequisites: Mat 132 and Mat 274. Topics may be selected from the following: methods of solving linear system of ordinary differential equations (ODEs) of finite order, initial and boundary value problems, qualitative theory of nonlinear ODEs, and rudiments of differentiable dynamical systems.

**MAT 251 FOUNDATIONS OF MATHEMATICS**

3 credits. Prerequisite: Mat 131. This course uses logic to study, in a unified manner, mathematical structures of algebraic, order, topological, and metric types as well as structure-preserving mappings. Concrete examples such as real and complex number fields are examined as applications.

**MAT 274 LINEAR ALGEBRA**

3 credits. Prerequisite: Mat 131. An introduction to vector spaces, sub-spaces, linear dependence and independence, bases, linear transformations and their matrix representations, dual spaces, eigenvalue problem, spectral theorems of linear operators, and scalar-product spaces. Emphasis is placed upon finite-dimensional vector spaces over the field of real numbers.

**MAT 312 GEOMETRIC STRUCTURES**

4 credits. Prerequisite: Mat 131. Topics from Euclidean, non-Euclidean, finite, and projective geometries. Appropriate topics from the History of Mathematics will also be considered.

**MAT 321 TOPICS IN ALGEBRA**

3 credits. Prerequisites: Mat 131 and Mat 274. Possible topics include group theory, ring theory, advanced linear algebra, and algebraic number theory. Course may be taken for credit more than once, as different topics are chosen. Course is offered in the spring semester of odd years or upon request.

**MAT 335 TOPICS IN ANALYSIS**

3 credits. Prerequisites: Mat 231 and Mat 274. Possible topics include, but not limited to, complex analysis, geometric analysis, and partial differential equations. Course may be taken for credit more than once, as different topics are chosen. Course is offered in the fall semester of odd years or upon request.

**MAT 435 REAL ANALYSIS**

3 credits. Prerequisites: Mat 131 and Mat 251. Study of continuity and differentiability properties of functions of real numbers. Theory of integration, series of functions, and metric spaces. Emphasis on understanding and proofs.

**MAT 489 SENIOR SEMINAR**

3 credits. Prerequisite: senior math standing. Offered fall semester by arrangement.

**MEDICAL LABORATORY TECHNOLOGY**

*College of Arts & Sciences*

**MLT 100 CLINICAL CHEMISTRY I**

3 credits. Prerequisites: Admission to the MLT Program or permission of the instructor. Topics include: laboratory math, quality control, theory of instrumentation, carbohydrates, electrolytes, mineral balance, renal function, lipids and arterial blood gases. Emphasis will be placed on the lab analysis of blood using spectrophotometers and correlation of laboratory test results with normal physiology and disease states. Course originates from UMPI. Fee.

**MLT 103 PHLEBOTOMY**

2 credits. Prerequisite: Admission to the MLT Program or permission of the instructor. Orientation to the field of med-

ical laboratory including professionalism and ethics, laboratory safety, and medical terminology. An introduction to blood collection: safety precautions, types of specimens, collection and handling techniques. Routine venipuncture and dermal puncture equipment and procedures as well as special situations and additional techniques used to accommodate them. Offered first summer of the Program. Course originates from UMA.

**MLT 104 PHLEBOTOMY PRACTICUM**

1 credit. Prerequisites: MLT 103 and permission of the instructor. Practicum in phlebotomy utilizing the laboratory facilities and staff at the University of Maine at Presque Isle and clinical affiliated hospitals. The fundamentals of specimen collection, specimen processing and handling with a minimum performance of 100 successful unaided blood collections including venipuncture and skin punctures will be performed. Offered first summer of the Program.

**MLT 105 URINALYSIS**

3 credits. Prerequisites: Admission to the MLT Program. The course prepares students to perform a complete urinalysis, which includes physical, chemical and microscopic analysis. Topics explore anatomy and physiology of the urinary system and its functions, urine formation and the procedures used in analysis of urines and body fluids, and the correlation of abnormal findings with disease states. Offered first summer of the Program. Course originates from UMPI. Fee.

**MLT 203 CLINICAL CHEMISTRY II AND IMMUNOLOGY**

3 credits. Prerequisite: MLT 100 or permission of the instructor. Topics include: the analysis of proteins, enzymes, laboratory markers of cardiac damage and function, liver function, hormones, therapeutic drug monitoring, toxicology and body fluids. Emphasis will be placed on the correlation of laboratory test results with normal physiology and disease states. Course originates from UMPI. Fee.

**MLT 204 CLINICAL MICROBIOLOGY**

4 credits. Prerequisites: BIO 316, MLT 206 or permission of the instructor. Consideration of pathological forms of microbes including their morphological, physiological, and nutritive characteristics. Some emphasis will be given to mycology and parasitology. Three 2-day intensive labs and/or review sessions. Course originates from UMA.

**MLT 205 IMMUNOHEMATOLOGY**

4 credits. Prerequisite: MLT 206 or permission of the instructor. Fundamentals of immunohematology with emphasis on antigens and antibodies of ABO, Rh and other blood group systems, antibody identification, pre-transfusion practices, donor screening, preparation of components and adverse effects of transfusion. Routine serological tests and quality control are included. Four intensive labs and/or review sessions. Course originates from UMPI. Fee.

**MLT 206 HEMATOLOGY/COAGULATION**

4 credits. Prerequisites: MLT 105, MLT 203 or permission of the instructor. Identification of blood cell types and their enumeration of body fluids. Various red cell and white cell disorders are discussed. Coagulation including routine coagulation tests, coagulation disorders, and anticoagulant therapy is covered. Three intensive labs and/or review sessions. Offered second summer of the Program. Course originates from UMA.

**MLT 395 HOSPITAL PRACTICUM**

12 credits. Prerequisites: MLT 100-206. A supervised clinical practicum in hematology, coagulation, blood banking, serology, urinalysis, clinical chemistry, and microbiology utilizing the laboratory facilities and staff at various clinical affiliates around the state.

**NURSING**

*College of Professional Programs*

**NUR 200 INTRODUCTION TO PROFESSIONAL NURSING**

2 credits. Requisite: GPA 2.5 or higher. Co-requisite: Nur 201L or Nur 202L or Nur 212L. This course introduces the stu-

dent to professional nursing: career and employment opportunities, the history and scope of nursing, communication, theories and theorists, critical thinking, the nursing process, legal and ethical issues inherent in nursing practice. Further, the course provides students with opportunities to practice professional nursing skills and to participate in professional nursing activities.

**NUR 201L FUNDAMENTAL SKILLS OF NURSING LAB I**

1 credit. Requisite: GPA 2.5 or higher. Nursing Skills Lab: This fundamental skills lab will assist students to develop cognitive and psychomotor skills for nursing the adult client in an acute or long-term care setting.

**NUR 202L FUNDAMENTAL SKILLS OF NURSING LAB II**

1 credit. Requisite: GPA 2.5 or higher. Nursing Skills Lab: assists students to develop cognitive and psychomotor skills for nursing the adult client in an acute or long-term care setting.

**NUR 230 PROMOTING PERSONAL HEALTH AND WELLNESS**

3 credits. Requisite: GPA 2.5 or higher. Co-requisite: Nur 201L or Nur 202L or Nur 212L. This course enables students to be informed, responsible, respectful, and capable when making decisions affecting their own wellbeing or when assisting their patients. The multiple dimensions of health and wellness (e.g., personal, social, economic, environmental, political) are examined. Personal and professional activities promoting health and preventing illness for oneself and the public, based on theoretical and evidence-based practice, are also included. Values and principles central to legal and ethical nursing practice are presented as is the importance of self-care to promote ethical and legal nursing practice. Personal and public values related to health and wellness are also discussed.

**NUR 302 PHARMACOLOGY**

3 credits. Requisite: GPA 2.5 or higher. Prerequisite: Bio 261, 262. This course introduces intermediate pharmacology

concepts including prototype drugs in major drug categories, potential drug actions and interactions, nursing process in therapeutic drug administration, and legal implications. It also addresses physiologic and psychological effects of drugs on various developmental and cultural groups. Active participation by students is critical. Key concepts are utilized to assist the student in developing an understanding of essential principles of pharmacology including but not limited to: pharmacokinetics, pharmacodynamics, pharmacogenomics, distribution, metabolism, and approaches to the therapeutic management of clients.

**NUR 309 HOLISTIC HEALTH ASSESSMENT**

4 credits. Requisite: GPA 2.5 or higher. Prerequisite: Bio 261, 262, Nur 200, 230, 309L. Prepares students with the knowledge, attitude, and skill needed to complete a detailed health history interview and comprehensive health assessment. With a focus on wellness, individual adult health status will be assessed, including physical, emotional, cultural, spiritual factors, from which appropriate nursing diagnoses may be derived.

**NUR 309L HOLISTIC HEALTH ASSESSMENT LAB**

1 credit. Requisite: GPA 2.5 or higher. Allows students the opportunity to develop their role as provider of safe and effective patient-centered care by building the knowledge, attitude, and skills required of health assessment and analysis of health findings.

**PHILOSOPHY**

*College of Arts & Sciences*

**PHI 150 INTRODUCTION TO LOGIC**

3 credits. An introduction to the study of arguments, both Classical and contemporary. Topics include informal reasoning, formal and informal fallacies, categorical logic, truth-tables, deductive and inductive arguments, proofs and symbolic logic. Designed to appeal to multiple disciplines, including pre-law studies.

**PHI 151 INTRODUCTION TO PHILOSOPHY**

3 credits. Prerequisite: Eng 100 with a grade of C- or higher OR Eng 101. Introduction to reading and interpretation of philosophical texts. Emphasis on recurring questions that have engaged philosophers from diverse cultures, and from ancient times to the present, such as what is of value?, what is reality?, and how do we know? The course will include instruction in the writing of critical essays.

**PHI 152 INTRODUCTION TO ETHICS**

3 credits. Prerequisite: Eng 100 with a grade of C- or higher OR Eng 101. This course will help students to address ethical issues with a greater understanding and confidence, both in terms of contemporary and historical approaches. Students will analyze various ethical theories, including virtue, utilitarian, and deontological approaches.

**PHI 300 TOPICS IN PHILOSOPHY**

3 credits. Prerequisite: Phi 151 or higher level course. Topics selected on the basis of faculty and student interest, but may include advanced studies in metaphysics, epistemology, ethics, and Classical and contemporary theories (i.e. deconstruction, existentialism, phenomenology). May be taken more than once if content varies.

**PHI/POS 303 FEMINIST THEORY**

3 credits. Eng 151 or Phi 151 or higher level Eng or Phi course. Explore feminist theories of women and empowerment, from the early modern “Women Controversy” through influential 19th and 20th century debates from a variety of contexts (may include Marxist/materialist, psychoanalytic, and post-structuralist theories).

**PHI/POS 343 MARXISM**

3 credits. Treats the development of Marx’s thought from classical German philosophy through historical materialism. Emphasizes the themes of the dialectic method, alienation, the class struggle, the theory of capitalist crises, the revolutionary socialist state, and proletarian internationalism. Includes discussion of contemporary applications and Marxist theory.

**POS/PHI 347 RUSSIA: KIEV TO PETER THE GREAT**

3 credits. An in-depth study of the political and economic culture of the unique Russian experience. Emphasis is upon “westernization,” territorial expansion and empire building, the development of absolutism, and the undercurrent of rebellion. This course fills history concentration and other departmental requirements for non-western or European history.

**PHI/ENG 374 TOPICS IN PHILOSOPHY AND LITERATURE**

3 credits. Prerequisite: Eng 151 or Phi 151. Comparative studies of philosophical and literary texts. Topics may include Literature and Environmental Ethics, studies in nature writing; Literature of Peace and Justice, studies of Thoreau, Gandhi, King and others; The Sixties, poetry and arts of the Beat Generation, and their descendants, influence of Eastern religions; Ethics, Literature and Society.

**PHI/ENG 388 LITERARY THEORY AND CRITICAL PRACTICE**

3 credits. Prerequisite: Eng 151. An introduction to literary theory with emphasis on its application to critical practice. Study of particular approaches may include structuralism, psychoanalysis, Marxism, deconstruction and post-modern theory, and feminism(s). Attention to the interdisciplinary nature of contemporary theory and its critique of the assumptions governing our interpretation of texts.

**PHYSICAL EDUCATION**

*College of Education/College of Professional Programs*

**PHI 102 DEVELOPMENTAL & GYMNASTICS ACTIVITIES**

2 credits. Students in this course will examine and participate in developmental movement activities in order to understand how movements in other activity forms are produced and taught. Skills in locomotor and non-locomotor and gymnastics will be taught. In addition, the students will learn cooperative games appropriate for school age children.

**PHE 121 TEAM ACTIVITIES**

2 credits. This class emphasizes the movement skills that contribute to a variety of physical education team activities. Students will also learn appropriate ways to modify team activities based on the assessment process.

**PHE 122 INDIVIDUAL & DUAL ACTIVITIES**

2 credits. Students will work towards mastery of the physical and cognitive skills of various individual and dual game activities. The activities are, but are not limited to: tennis, badminton, speedminton, pickle-ball, archery, disc golf, bowling, etc. Students will also have opportunities to teach skills of one or more of the activities.

**PHE 123 DANCE & RHYTHMIC ACTIVITIES**

2 credits. Students will participate in an array of multicultural and social dance forms. In addition, they will gain experience in leading a class in the performance of a dance. Dance forms will include: folk dance, square dance, ballroom dance, line dance and barn dance.

**PHE 166 TECHNIQUES OF AQUATICS**

2 credits. This course is designed to facilitate the development of knowledge and movement skills in aquatics. May include skills used in water – i.e., strokes – and on the water – i.e., small crafts to assist students in fostering lifetime skills leading to lifelong wellness. Fee.

**PHE 172 LIFEGUARD TRAINING**

2 credits. Prerequisite: Pass swim pretest. The purpose of the American Red Cross Lifeguarding course is to provide entry-level lifeguard participants with the knowledge and skills to prevent, recognize and respond to aquatic emergencies and to provide care for breathing and cardiac emergencies, injuries and sudden illnesses until emergency medical services (EMS) personnel take over. Pool Fee.

**PHE 174 WATER SAFETY INSTRUCTOR**

2 credits. Prerequisite: a current Red Cross Advanced Life Saving card. The course is designed to enable the student who successfully completes the course to become certified as a Water Safety Instructor by the American Red Cross. Pool Fee.

**PHE 265 MOTOR LEARNING**

3 credits. Motor development and learning as it relates to Physical Education, and explaining how changes in motor development impacts the learning of motor skills. Various motor learning theories are explored with application of these theories to Physical Education and coaching.

**PHE 267 TEACHING ELEMENTARY PHYSICAL EDUCATION**

3 credits. An examination of teaching strategies that will foster student learning in K-5 physical education. Topics include developmentally appropriate instruction, assessment of learning, lesson planning, curriculum integration, motor learning, and modifying activities for special populations. The Maine teaching standards are emphasized in this class.

**PHE 302 TEACHING SECONDARY PHYSICAL EDUCATION**

3 credits. Explores the educational strategies that promote student learning in 6-12 physical education classes. The course, which supports the Maine teacher standards, looks at the following topics: developmentally appropriate instruction, social interaction, assessment of learning, lesson planning, motor learning, and accommodating diverse learners in the classroom.

**PHE 361 TECHNOLOGY FOR PHYSICAL EDUCATORS**

3 credits. This course offers practical experience in incorporating various technologies and computer applications in school physical education programs. Emphasis is placed on analyzing human movement, assessing student learning, website development and implementation, critiquing internet websites, promotion of physical education programs in the school and instructional methodology and programmatic assessment.

**PHE/EDU 376 TEACHING HEALTH AND PHYSICAL EDUCATION IN THE ELEMENTARY SCHOOL**

3 credits. Prerequisites: Edu 310 and Psy 100. Methods and techniques in teaching health and physical education including

lesson and program planning, observation and demonstration lessons, evaluation techniques, and experiences in teaching. Stress is on the three areas basic to school health education.

**PHE 384 FUNDAMENTALS OF COACHING**

3 credits. This course focuses on the knowledge, behaviors, and principles associated with appropriate practices in athletic coaching. It is designed for application to both individual and team sports. It adheres to the philosophy, "Athletes first, winning second." Subjects covered are: performance enhancing drug use, fitness training, team management, player motivation, and risk management. Fee.

**PHE 385 ADAPTED PHYSICAL EDUCATION**

3 credits: Prerequisite: EDU 152, 153 and 200. This course focuses on motor development and motor learning issues associated with pre-K through 12th grade children having physical and/or learning disabilities. Topics include: assessment and evaluation tools, IEPs, current research literature, appropriate teaching practices, and government regulations.

**PHE 405 TOPICS IN PHYSICAL EDUCATION**

3 credits. This course will present topics that reflect the issues, concerns and trends within physical education. Students will engage in discussion, reflection and possible research. The topic will change, thus the course can be taken multiple times, provided the topics are different.

**PHE 480 MEASUREMENT AND EVALUATION OF PHYSICAL EDUCATION**

3 credits. Lecture, discussion, and participation in the development, evaluation, and practical application of measurement devices pertaining to physical education; the application of statistics in administering and analyzing measurement in physical education; and a review of the current research.

**PHE 485 ORGANIZATION AND ADMINISTRATION OF PHYSICAL EDUCATION**

3 credits. Coordinates the various phases of the Physical Education program. Emphasis is placed on the orga-

nization and administration of the total program in relation to the community, the students, school personnel, scheduling, programming, supplies, equipment, and facilities.

**PHYSICAL THERAPIST ASSISTANT**

*College of Professional Programs*

**PTA 100 INTRODUCTION TO PHYSICAL THERAPY**

2 credits. Prerequisite: Must be admitted to the PTA program. This course introduces the profession of physical therapy including history, scope of practice and role of the PT and PTA. Practice settings, communication in health care, safety standards, current trends in PT, ethics, documentation, foundation concepts in therapeutic exercise, and guidelines for understanding health care literature will also be discussed. Fee.

**PTA 102 CLINICAL CONDITIONS IN PHYSICAL THERAPY**

3 credits. Prerequisite: Must be admitted to the PTA program. This course provides the PTA student with an overview of clinical disorders, diseases, and injuries commonly encountered in physical therapy. Medical terminology as well as the etiology, pathology, medical diagnosis, signs, symptoms, prognosis and medical treatments will be discussed for each condition.

**PTA 104 DATA COLLECTION IN PHYSICAL THERAPY**

4 credits. Prerequisite: Must be admitted to the PTA program. Course provides the student with knowledge and skills needed to collect objective data related to muscle strength and joint ROM testing from an orthopedic perspective. Goniometric joint measurement and manual muscle testing techniques will be the focus of this course.

**PTA 106 PHYSICAL THERAPY PROCEDURES AND INTERVENTIONS I**

4 credits. Prerequisite: Must be admitted to the PTA program. Course provides the PTA student with entry-level skills and knowledge needed to carry out basic

procedures and interventions under the direction and supervision of the physical therapist. Topics will include documentation in physical therapy, wheelchair and assistive device management, function training and foundational therapeutic exercise, palpation and basic massage.

**PTA 202 THERAPEUTIC MODALITIES FOR THE PTA**

3 credits. Prerequisite: Pta 106. Students will identify and describe indications, contraindications and biophysics of physical agents and demonstrate clinical application of agents that reduce pain and aid in the healing process.

**PTA 204 THERAPEUTIC EXERCISE IN PHYSICAL THERAPY**

4 credits. Prerequisite: Must be admitted to the PTA program. Course is an in-depth study of therapeutic exercise interventions commonly indicated in the PT plan of care for the prevention and rehabilitation of surgical and nonsurgical conditions. Specific aerobic, strength, endurance, balance, range of motion and flexibility exercises with indications, contraindications and progressions will be presented with emphasis on orthopedics.

**PTA 206 PHYSICAL THERAPY PROCEDURES AND INTERVENTIONS II**

4 credits. Prerequisite: Completed first semester PTA technical coursework. Course provides the PTA student with skills and knowledge needed to work with specialized populations and conditions encountered in physical therapy. This course integrates lecture and laboratory learning in the areas of acute care, orthotic and prosthetic devices, cardiac and pulmonary rehabilitation, wound care, women's health, pediatrics, and aquatics.

**PTA 208 NEUROLOGICAL INTERVENTIONS IN PHYSICAL THERAPY**

4 credits. Prerequisite: Completed first semester PTA technical coursework. Course builds upon the student's foundation in neuroscience and provides a greater breadth and depth of knowledge in neuroanatomy, physiology, and pathology. The course emphasizes a strong lab component where students demonstrate proficiency in the knowledge and skills

needed to implement physical therapy interventions for the neurologically impaired patient.

**PTA 210 CLINICAL EDUCATION SEMINAR**

1 credit. Prerequisite: Completed first semester PTA technical coursework. This seminar course is intended to prepare students for clinical work and provide students with an opportunity to discuss experiences from their integrated clinical. The primary focus of this seminar will be group discussion, problem solving, and personal and professional growth and development.

**PTA 212 CLINICAL EDUCATION EXPERIENCE I**

2 credits. Prerequisite: Successful completion of all general education, Pta 100, 102, 104, 106. This first part-time clinical education experience is integrated within the curriculum and provides students with the opportunity to work in a health care setting under the supervision of a licensed physical therapist or physical therapist assistant. Students will apply learned knowledge and skills and assume responsibilities in direct patient care.

**PTA 215 PROFESSIONAL DEVELOPMENT SEMINAR**

2 credits. Prerequisite: Successful completion of first two semesters of PTA technical coursework. The seminar is primarily intended to help students prepare for the national PTA board exam and develop professional skills for a successful career and lifelong learning. Students will complete a professional development plan and present service learning/capstone research projects.

**PTA 220 CLINICAL EDUCATION EXPERIENCE II**

6 credits. Completed first 2 semesters PTA technical coursework. This clinical experience provides students with the opportunity to work full time in a health care setting under the supervision of a licensed physical therapist or physical therapist assistant. This is the first of two terminal clinical experiences where the student demonstrates entry-level skills in direct patient care.

**PTA 225 CLINICAL EDUCATION EXPERIENCE III**

6 credits. Prerequisite: Successful completion of Pta 220. This clinical ex-

perience provides students with the opportunity to work full time in a health care setting under the supervision of a licensed physical therapist or physical therapist assistant. This is the final terminal clinical experience where the student demonstrates entry-level skills in direct patient care.

**PHYSICS**

*College of Arts & Sciences*

**PHY 153 GENERAL PHYSICS I**

4 credits. Prerequisites: Mat 131 or instructor permission. Lectures, demonstrations, and laboratories covering selected topics in mathematical physics, engineering, and classical and modern physics. Laboratory time used for problem solving, performing experiments, and/or computer simulations. Lab fee. Syllabus may vary.

**PHY 154 GENERAL PHYSICS II**

4 credits. Prerequisite: Phy 153. Lectures, demonstrations, and laboratories covering selected topics in mathematical physics, engineering, and classical and modern physics. Laboratory time used for problem solving, performing experiments, and/or computer simulations. Lab fee. Syllabus may vary.

**POLITICAL SCIENCE**

*College of Arts & Sciences*

**POS 101 AMERICAN GOVERNMENT**

3 credits. Examines the constitutional foundations and principles of American government. Treatment focuses on federalism; civil liberties and civil rights; interest groups, political parties and elections; and Congress, the Presidency, and the Supreme Court.

**POS 211 INTRODUCTION TO POLITICAL THOUGHT**

3 credits. Examines major texts in the history of political thought and the questions they raise about the design of the political and social order.

**POS 301 EUROPEAN GOVERNMENTS AND THE EUROPEAN UNION**

3 credits. Examines the Western European democracies of the UK, Germany and France alongside Central and East-

ern European emerging democracies. Explores institutional structures and their social connections through interest groups, political parties, and elections. Examines the political, economic, and military integration of nations through membership in the European Union and NATO.

**Pos/Phi 303 FEMINIST THEORY**

3 credits. Eng 151 or Phi 151 or higher level Eng or Phi course. Explore feminist theories of women and empowerment, from the early modern “Women Controversy” through influential 19th and 20th century debates from a variety of contexts (may include Marxist/materialist, psychoanalytic, and post-structuralist theories).

**Pos 310 ENERGY LAW & POLICY**

3 hours. This course overviews the law and public policy framework of energy extraction and production. Topics include ownership of energy raw materials and relevant constitutional and international law. Also the role of the federal government in regulating energy, including health and safety, environmental protection, and energy security goals, and contrasting regulatory strategies.

**Pos 320 ENERGY PROJECT DEVELOPMENT**

3 credits. Prerequisite: Pos 310 or instructor permission. This course overviews how energy extraction and production projects are planned, developed and implemented. Case studies of energy projects are employed to explain the life-cycle of energy projects, inclusive of site selection, business financing, and complying with legal and regulatory requirements.

**Pos 332 CONSTITUTIONAL LAW**

3 credits. Prerequisite: Pos 101 or any law course. Examines American constitutional theory treating the separation and division of government powers, and civil rights and civil liberties. Extensive treatment is accorded the implied powers of the federal government.

**Pos 335 MODERN POLITICAL THOUGHT**

3 credits. This course examines in depth several of the most profound and

influential political theorists of the modern age including Hobbes, Locke, Rousseau, Kant and prominent 19th and 20th century critics. Major emphasis will be upon the content of their theories, but also consideration of their relevance to an understanding of contemporary politics.

**Pos/Phi 343 MARXISM**

3 credits. Treats the development of Marx’s thought from classical German philosophy through historical materialism. Emphasizes the themes of the dialectic method, alienation, the class struggle, the theory of capitalist crises, the revolutionary state, and proletarian internationalism. Includes discussion of contemporary applications and Marxist theory.

**Pos/Phi 347 RUSSIA: KIEV TO PETER THE GREAT**

3 credits. An in-depth study of the political and economic culture of the unique Russian experience. Emphasis is upon “westernization,” territorial expansion and empire building, the development of absolutism, and the undercurrent of rebellion. This course fills history concentration and other departmental requirements for non-western or European history.

**Pos 369 AMERICAN-CANADIAN RELATIONS**

3 credits. Prerequisites: Previous Hty or Pos course. This course examines the United States - Canada bi-lateral relationship in terms of politics, economics and security, and their joint relations with other countries and organizations in world affairs.

**Pos/Hty 370 TOPICS IN NON-WESTERN HISTORY**

3 credits. This is a basic introductory examination of a specialized field in African, Asian, or Latin American History. Specific topic will be listed with the course title when offered. This course fills history concentration and other departmental requirements for non-western history.

**Pos/Hty 371 INTERNATIONAL RELATIONS AND MODERN CONFLICTS**

3 credits. Prerequisite: 100- or 200-level history course. Examines various types of world conflicts during the modern period. May include, but is not

limited to, one or more of the following: diplomatic, military, ethnic, racial, class, and religious conflicts.

**Pos/Hty 377 MODERN CHINA**

3 credits. A survey of the history of China from the nineteenth century to the present. Three important issues are Chinese culture, the cultural conflict with the West, and, modernization. This course fills history concentration and other departmental requirements for non-western history.

**Pos 493 POLITICAL SCIENCE CAPSTONE SEMINAR**

1 credit. Prerequisite: Senior-level standing. A research-oriented seminar designed to integrate student’s prior knowledge and strengthen lifelong learning skills.

**PROFESSIONAL COMMUNICATION & JOURNALISM**

*College of Arts & Sciences*

**PCJ 180 INTRODUCTION TO PROFESSIONAL COMMUNICATION AND JOURNALISM**

3 credits. Prerequisite: Eng 100 with a grade of C- or higher OR Eng 101. This is a course in “popular communication.” It teaches students about message and audience, hooking and keeping readers, viewers and listeners, writing the way they talk—only better. This is a standard course for programs in professional communication and journalism. It lays a solid foundation for later specialization and refinement.

**PCJ 214 MAGAZINE AND FEATURE WRITING**

3 credits. Prerequisite: Eng 100 with a grade of C- or higher OR Eng 101. Class will help students tap into the infinite and lucrative magazine and newspaper feature writing market. Students will learn how to answer readers’ needs and find story ideas in everything. They’ll be out of the classroom, taking the community pulse. They’ll write for the U Times, Upcountry and other opportunities.



**PCJ 215 BUSINESS COMMUNICATION**

3 credits. Prerequisite: Eng 100 with a grade of C- or higher OR Eng 101. Students will master the necessary communication skills to thrive in any business or professional area. They'll become proficient in everything from phone etiquette, e-mail and memos, to proposals and presentations. They'll get out of the classroom, partnering with an organization to apply what they've learned.

**PCJ 216 EDITING**

3 credits. Prerequisite: Eng 100 with a grade of C- or higher OR Eng 101. Editing is an art form. Those who can edit are always in demand. This course will help students gain critical evaluation and practical skills. They'll learn to blend new technologies with traditional editing skills. Then they'll team with academic and community partners to apply their skills.

**PCJ 315 PROFESSIONAL COMMUNICATION**

3 credits. Prerequisite: Pcj 180 or any 200-level or higher Pcj course. Focus on writing as a profession. Review of such basics as e-mail, memos, phone etiquette, reports, proposals. Progress into more complex venues such as advocacy communication, communication audits, and focus groups. Students will work with clients producing communication products the organizations will use and enhance student profiles.

**PCJ 316 ADVANCED PROFESSIONAL COMMUNICATION**

3 credits. Prerequisite: Pcj 215 or Pcj 315. Further development of professional communication skills for those with targeted career goals. Course focus varies: will emphasize such advanced advocacy communications as proposals, grants, annual reports, overarching communication plans, focus groups and sophisticated presentation skills. Will work with real world partners.

**PCJ 318 EVOLVING MEDIA**

3 credits. Prerequisite: Pcj 180 or any 200-level or higher Pcj course. Students will examine evolving media: past, present and future. They will examine their ethical, legal and social implications.

They will then use them, creating published projects and learning to adapt to a continually changing media world. Although media will continually evolve, the value of adaptability will be constant throughout their careers.

**PCJ 319 MARKETING COMMUNICATION**

3 credits. Prerequisite: Pcj 180 or any 200-level or higher Pcj course. This course gives students specific tools, helping them find and communicate the essence of a message. They will study lessons and best practices from the world's greatest companies. Then they will put the lessons to work through strategic plans and marketing campaigns. This course demonstrates the bridge to business success.

**PCJ 396 FIELD EXPERIENCE PRACTICUM**

3 credits. Prerequisite: Permission of the instructor. Students will act as professional communicators in the field. They may work in traditional journalism areas or focus upon other aspects of professional communication. Through guided autonomy, they'll produce professional quality work for partners and demonstrate their ability to serve as successful communication practitioners. Course may be repeated once for credit.

**PCJ 493 COMMUNICATION CAPSTONE**

1 credit. Prerequisite: permission of the instructor. Students will demonstrate a deep understanding of Message, Audience, Support, Ethics and Venue through discussions and presentations. They'll prepare professional portfolios. Students will develop effective resumes and cover letters. They'll prepare to interview and fill jobs. This course provides the last steps to becoming a professional.

**PSYCHOLOGY**

*College of Arts & Sciences*

**PSY 100 GENERAL PSYCHOLOGY**

3 credits. Prerequisite: A passing score on both the reading and writing placement tests or successful completion of Eng 100 or a non-degree seeking student. Provides a general introduction to psychology, the scientific study of be-

havior and mental processes. The course presents major theoretical perspectives, methodologies, and key findings in physiological, cognitive, motivation, learning, developmental, personality, abnormal, and social psychology.

**PSY/Soc 200 SOCIAL PSYCHOLOGY**

3 credits. Prerequisite: Psy 100 or Soc 100. Considers the processes by which individuals interact with others, influence and are influenced by others, and are shaped by society. Includes topics such as the self, attitudes, prejudice, stereotypes, interpersonal attraction, group dynamics, and persuasion.

**PSY 205 LIFESPAN DEVELOPMENT**

3 credits. Prerequisite: Psy 100. Surveys changes in cognitive, personal, and social functioning from before birth through old age. Using a life-span framework, emphasizes the principles, theories, and methods that psychologists use.

**PSY 235 ABNORMAL PSYCHOLOGY**

3 credits. Prerequisite: Psy 100. Examines the classification, determinants, and indications of mental illness and its treatments. Topics include schizophrenia, personality disorders, mood disorders, anxiety-related disorders and substance-related disorders.

**PSY 310 SPORTS & EXERCISE PSYCHOLOGY**

3 credits. This course focuses on psychological variables related to performing well in sports and maintaining a healthy lifestyle. Specifically, motivational, social, personality, cognitive, behavioral and physiological perspectives will be related to athletic performance and healthy behavior. Moreover, an evidence-based perspective will be emphasized when evaluating techniques in the literature

**PSY 311 RESEARCH METHODS I**

3 credits. Prerequisites: Soc 100 or Psy 100, and Mat 101 or Mat 201. Presents fundamentals of research design, measurement, and data analysis. Applications of research methods within the behavioral sciences, including scientific writing and professional ethics.

**PSY 312 RESEARCH METHODS II**

3 credits. Prerequisite: Psy/Soc 311. Presents intermediate issues in research design, hypothesis-testing, data analysis, and technical writing in psychology. Promotes understanding of relevant empirical literature, preparation of spreadsheets and graphic display of data, and applications of statistical analyses. Class research projects offer foundation for independent work.

**PSY 341 DRUGS AND BEHAVIOR**

3 credits. Prerequisite: Psy 100 or Soc 100. Surveys information of recreational and therapeutic drugs and their effect at various levels including that of the nervous system, individual behavior, and broader society consequences.

**PSY 350 SPECIAL TOPICS IN PSYCHOLOGY**

3 credits. Prerequisite: Psy 100. Explores special topical areas within psychology for further explanation of topics beyond that possible in other existing courses. Students in collaboration with an instructor may fashion course to meet needs and interests of those involved. Course may be repeated twice if topic is different or at an advanced level from that previously taken by individual students.

**PSY 355 GROUP PROCESS**

3 credits. Prerequisite: Psy 100 or Soc 100. Provides theoretical examination of group dynamics, group behavior, and individual behavior within groups. The course considers norms, roles, status, power, communication, productivity, motivation, member diversity, leadership, and conflict resolution. The class also offers experiential practice as a small group, and explores one's own emotions, motivations, and skills in group participation.

**PSY 360 ANIMAL BEHAVIOR**

3 credits. Prerequisite: Psy 100 or Bio 112. Explores similarities and differences in behavior among a variety of species and considers the implications of such differences. Major topics will include behavioral genetics, evolutionary theory, natural selection, mate choice and reproduction, communication, sociality, and foraging.

**PSY 370 PERSONALITY**

3 credits. Prerequisites: Psy 100 and Psy/Soc 311. Presents principles and issues in scientific study of personality. Emphasis on description and assessment, classical theories, controversial issues, and recent research.

**PSY 374 VOCATIONAL ASPECTS OF DISABILITY**

3 credits. Prerequisite: Soc 100 or Psy 100. This course explores the many aspects of assisting clients with various disabilities as they transition from adolescence, or are rehabilitated as adults, to the adult world of work. Working with individuals who may have mental illness or with cognitive, physical, or developmental disabilities or substance abuse issues is explored. Emphasis is placed on assessing and working with their strengths, needs, interests, and aptitudes. The supports and barriers of society, government and private agencies, and individuals will be examined, with an overarching goal of helping clients to reach their full potential, while maintaining their personal dignity.

**PSY 375 SEX AND GENDER**

3 credits. Prerequisite: Psy 100 or Soc 100. Investigation of gender in North American society. Feminist, social constructionist, sociobiological, and social psychological perspectives will be explored. Focus is on the creation of gender identities, inequalities, cultural expectations, and cultural representations of gender. Other topics include childhood socialization, sexualities, gender activities, and social power.

**PSY 380 PRINCIPLES OF COUNSELING**

3 credits. Prerequisites: Psy 235 and Psy 370. Introduces theories and techniques of psychological counseling. Considers the counseling relationship and the personal and professional issues involved in becoming a counselor. Emphasis on determinants and evaluation of counseling success.

**PSY 382 SUBSTANCE ABUSE COUNSELING**

3 credits. Prerequisites: Psy 100 and Psy 235, or permission of the instructor. This course explores the definition, causes, theories, and treatment approaches to

the process of addiction, with emphasis upon dual diagnosis clients. Working with mentally ill and substance misusing clients in various settings is explored. Emphasis is on application of recent research to the philosophy and methods of treatment.

**PSY 404 PSYCHOLOGY OF LEARNING**

3 credits. Prerequisite: Psy 100. Basic principles of learning will be examined with an emphasis on their application to understanding and modifying behavior. Theories, models, research, and applications of learning principles to education, child-rearing, counseling, and biofeedback. Laboratory simulation approaches will demonstrate concepts developed with animals, but readily applicable to children and adults.

**PSY 446 PSYCHOBIOLOGY**

3 credits. Prerequisite: Psy 100 or Bio 112. Explores the relationship between behavior and activity of the nervous, sensory, and endocrine systems. Topics include behavior genetics, learning and memory, emotions, sleep, and behavioral disorders.

**PSY 448 COGNITIVE PSYCHOLOGY**

3 credits. Prerequisites: Psy 100 and Psy/Soc 311. Recommended: Psy 446. Surveys research and theory on human cognition. Laboratory exercises will include attention, memory, problem solving, language, and creativity and other topics. Format includes lectures and laboratory activity.

**PSY 475 HISTORY & SYSTEMS OF PSYCHOLOGY**

3 credits. Prerequisites: Senior Standing, Psy/Soc311 and two 300/400 level courses in psychology. An examination of the theoretical and historical framework underlying psychology as a field and a profession. Emphasis on clinical psychology, school psychology, industrial-organizational psychology, counseling psychology, and their links to training of professionals. Integrates principles from the major content areas and promotes professional research and writing in APA style.

**PSY 480 ADVANCED RESEARCH**

1-3 credits. Prerequisites: Psy 312, junior or senior standing, and consent of instructor. Student designs and conducts empirical research under supervision of psychology faculty member. Course may be repeated for a total not to exceed six credits.

**PSY 496 PRACTICUM**

1-3 credits. Prerequisites: Psychology major or minor with junior or senior standing and consent of instructor. Supervised field experience in a social service or other setting where psychology background and skills are especially useful. Course may be repeated for a total not to exceed six credits.

**RECREATION**

*College of Professional Programs*

**REC 122 LEADERSHIP TRAINING IN RECREATION**

3 credits. Leadership Training is a course designed to provide the student with the basic knowledge of leadership theories, specific communication skills, and application methods that are relevant to the recreation/leisure professional.

**REC 232 PROGRAM DEVELOPMENT AND PLANNING**

3 credits. This course is designed to introduce the student to recreation program development through an understanding of systematic programming skills, budgeting, personnel management, implementation and marketing strategies, and the evaluation cycle.

**REC 234 OUTDOOR PURSUITS I**

3 credits. This course is experientially based and will provide opportunities for skill, technique, and leadership development in several of the following activities: backpacking, flatwater and/or whitewater canoeing, canoe camping, rock climbing, kayaking, and rafting. Emphasis will be placed on organizing, planning, leading, and evaluating the physical, cognitive, emotional, and special need factors of an outdoor leisure pursuit for diverse populations. Fee.

**REC 235 OUTDOOR PURSUITS II**

3 credits. This course is experientially based and will provide opportunities for skill, technique, and leadership development in winter camping, snowshoeing, and nordic and alpine skiing. Emphasis will be placed on developing basic skills, organizing, planning, leading, and evaluating the physical, cognitive, emotional, and special needs factors of an outdoor leisure pursuit for diverse populations. Fee.

**REC 360 ROPES COURSE MANAGEMENT**

3 credits. This course requires students to actively participate and engage in activities involving low and high ropes course elements. Students will learn how to safely manage ropes course facilities and to guide participants through ropes course elements. Students will develop and facilitate a variety of adventure experiential education activities and projects.

**REC 364 INTRODUCTION TO ROCK CLIMBING**

3 credits. This course requires students to actively participate in both indoor and outside rock climbing. This course will serve as a foundation for students desiring to learn and explore the activity of climbing. Students will be required to participate in an outside trip in April. Fee.

**REC 372 CLIMBING II: ADVANCED SKILLS AND PRACTICES**

3 credits. Prerequisite: Rec 364. This course requires the student to explore advanced climbing skills both at the indoor climbing wall and at outside climbing sites. This course serves as a foundation for the student who wants to climb independently or prepare for PCIA climbing instructor certification in top rope climbing.

**REC 374 WILDERNESS EXPEDITION SKILLS**

4 credits. Prerequisites: Rec 234, Rec 235. This experiential course requires students to work with a faculty member to design and carry out an extended backpacking trip. This leadership-related course focuses on developing outdoor skills in back country living while on the trail. This course requires students to

participate in an extended backpacking trip. Fee.

**REC 495 INTERNSHIP**

6 credits. Prerequisite: Permission of the instructor. All recreation students must complete a 10-week (350 hours) internship in an approved outdoor recreation/tourism agency. The internship must be directly related to the student's concentration and be approved by a recreation advisor.

**RUSSIAN**

*College of Arts & Sciences*

**RUS 101 ELEMENTARY RUSSIAN I**

3 credits. Interactive introduction to the Russian language. Stresses a multifaceted approach to communication in the Russian language. Language instruction focuses on Russian history and culture.

**RUS 102 ELEMENTARY RUSSIAN II**

3 credits. Prerequisite: Rus 101 or equivalent. Interactive continuation of the Russian language. Stresses the use of vocabulary in conducting everyday activities in Russia. Language instruction focuses on Russian history and culture.

**SCIENCE**

*College of Arts & Sciences*

**Edu/Sci 382 STEM**

3 credits. Prerequisites: Candidacy, junior status or permission of instructor. Students will deliver science, technology, or engineering activities with youth in local out of school/after school or in-school learning environments. Students will receive specialized training in experiential learning, youth development and risk management, and will also be trained to use prepackaged curricula and materials (provided). Evaluation of the experience for both students and the youth they serve will be expected.

**SCI 480 RESEARCH METHODS IN SCIENCE**

3 credits. Prerequisite: Permission of a science faculty member from the Department of Mathematics and Science who will serve as the supervisor. A seminar which provides an introduction to procedures involved in scientific research.

Emphasis is placed upon experimental design, methodology, and technique. The student works under the supervision of a faculty member on a project in the general areas of biology, chemistry, ecology, or geology. Offered by arrangement.

## SOCIAL WORK

### *College of Professional Programs*

#### **SWK 200 INTRODUCTION TO SOCIAL WORK AND SOCIAL WELFARE**

3 credits. Prerequisites: Psy 100 and/or Soc 100. The course explores social work and other human service professions and how each meets human needs. Social welfare institutions are reviewed through cultural, political, and economic contexts for American and Canadian society. There is special attention to service delivery in a rural context, populations-at-risk and societal oppression.

#### **SWK 202 ETHICS IN THE HELPING PROFESSIONS**

3 credits. Prerequisites: Psy 100 and Soc 100, may be taken concurrently. The course focuses on basic ethical and legal concepts as applied to social work and human service policies and practices. Issues pertaining to confidentiality, clients' rights, informed consent, mandated reporting, and dual relationships will be surveyed. Identifying and resolving ethical dilemmas and developing problem solving skills will be introduced.

#### **SWK 207 COMMUNITY MENTAL HEALTH CARE**

3 credits. Prerequisite: Psy 100 or Soc 100. This is a basic course in the history and evolution of mental health, focusing on contemporary community mental health care, particularly service systems of Maine. It is not a "how to" class in counseling or mental health diagnosis, rather, it presents information through guest presentation, panel discussion, and dialogues.

#### **SWK 236 PSYCHOSOCIAL REHABILITATION**

3 credits. Prerequisite: Psy 100. This course examines the basic principles of psychosocial rehabilitation and its role in mental health and social service systems. Students will be introduced to client assessment, planning, intervention, and

rehabilitation service strategies from the strengths perspective of clients. Course satisfies Mental Health Rehabilitation certification.

#### **SWK/EDU 250 CHILD WELFARE - APPLICATIONS FOR EDUCATION & SOCIAL WORK**

3 credits. This course is designed as an introduction to human services with children, youth, and families with emphasis on the education and social work settings. The concepts of child abuse and neglect are introduced. Service learning and child observation techniques will be used to review child welfare services and methods.

#### **SWK 285 HUMAN BEHAVIOR IN THE SOCIAL ENVIRONMENT I**

3 credits. Completion of Swk 200 recommended, but not required. Empowering people to change requires understanding the dynamics of human interaction. This course initiates students' awareness of the interplay between humans, their behavior, and their social environment. This concept is primary to preparation as a generalist practitioner of social work. This course focuses on individual development in a family context.

#### **SWK 287 HUMAN BEHAVIOR IN THE SOCIAL ENVIRONMENT II**

3 credits. Completion of Swk 200 recommended, but not required. Empowering people to change requires understanding the dynamics of human interaction. This course initiates students' awareness of the interplay between humans, their behavior, and their social environment. This concept is primary to preparation as a generalist practitioner of social work. This course examines families, groups, organizations, and communities.

#### **SWK 300 SOCIAL WELFARE POLICY AND ISSUES**

3 credits. Co-requisite: Swk 200. Students will be introduced to methods of assessment and analysis of social welfare policy. The interrelation of policy and society will be studied. The course reviews social welfare history, public policy development, and how social work is organized by social welfare to respond to need.

#### **SWK 305 ETHNICITY AND MULTICULTURALISM**

3 credits. Open to students from any major as a course in diversity. The purpose of this course is to encourage students' exploration of culture and ethnicity, especially in relation to social work and other human service professions. Developing ethnic self-awareness will be a primary course objective. Students learn about advocacy, education and role modeling to support and understand multiculturalism in society. Course satisfies Mental Health Rehabilitation certification.

#### **SWK 307 INCEST AND SEXUAL ABUSE**

3 credits. Prerequisite: Psy 100 or Soc 100 or permission of instructor. This course provides basic knowledge about the complex dynamics of incest and sexual abuse. A historical review is presented as well as various models of understanding issues associated with sexual abuse and incest. Review of traditional response/treatment approaches and new techniques for use with sexual abuse victim population will be discussed. Course satisfies Mental Health Rehabilitation certification.

#### **SWK 309 CASE MANAGEMENT PRACTICE**

3 credits. Prerequisite: Psy 100. Careers in human service delivery require skill development to address problems and develop a plan for resolution. This course introduces students to basic case management techniques and challenges participants to become "professional helpers." Course satisfies Mental Health Rehabilitation Certificate.

#### **SWK 315 SOCIAL WORK PRACTICE I**

3 credits. Admission into the BSW program required. The first of three practice classes, students acquire entry level skills such as interviewing, data collection, documentation, dealing with ethical dilemmas necessary for beginning generalist social work practice. Critical thinking and self-exploration are integral components of coursework. Diversity, empowerment and a strengths perspective in relation to the individual system emphasized.

**SWK/SOC 325 GERONTOLOGY**

3 credits. Prerequisite: Soc 100. This course introduces students to the issues of aging through an interdisciplinary perspective. Social forces affecting people as they age, including biological, psychological, social, and spiritual issues is presented in a seminar class style. Current research and theory is critiqued. Aging is presented as a process rather than singular life event.

**SWK/EDU 350 – CHILDREN AND GRIEF AND ITS IMPACT ON LEARNING**

3 credits. The purpose of this class is to enrich students' exploration of their understanding of death and loss, as it relates to children, especially in the context of social work teaching and other human service professions.

**SWK 380 SOCIAL WORK METHODS AND PRACTICE WITH FAMILIES**

3 credits. Prerequisite: Swk 200 preferred, but not required. The course integrates knowledge, values and skills as applied to families and family subsystems. A variety of approaches to interventions with diverse family systems are surveyed.

**SWK 381 CRISIS INTERVENTION**

3 credits. Prerequisite: Psy 100. A study of areas of human behavior typically necessitating intervention, with particular focus on family violence, substance abuse and severe depression. Students learn to identify behaviors that indicate crises, develop personal skills and models of intervention, and appropriate referral tactics. Issues of personal, social, and legal relevance are covered. Cultural sensitivity will be emphasized. Course satisfies Mental Health Rehabilitation certification.

**SWK 396A JUNIOR FIELD I**

3 credit hours. One hundred (100) hours minimum of field work is completed during the semester under the instructor's supervision. Review of the experience occurs through group and individual classroom discussions. This course is open to students of all majors and can add a field experience to enrich their education.

**SWK 396B JUNIOR FIELD II**

3 credits. Prerequisites: BSW Major and Swk 200. Co-requisite: Swk 315. One hundred (100) hours minimum of field work is completed during the semester under the instructor's supervision. Review of the experience occurs through group and individual classroom discussion. Required for progression into the Senior Field Practicum.

**SWK 400 SOCIAL WORK PRACTICE II**

3 credits. Prerequisites: Swk 315, Swk 396B; co-requisite: Swk 496A. This course is designed to build on foundation developed in earlier generalist social work courses and assist in integrating knowledge, values and skills as applied to groups. A variety of approaches to the development of interpersonal communication, as assessment, planning, intervention, evaluation with diverse groups are surveyed.

**SWK 405 SOCIAL WORK PRACTICE III**

3 credits. Prerequisite: Swk 400; co-requisite: Swk 496. The last of three courses addressing skills and knowledge for generalist social work practice with communities, agencies and organizations. Students explore theory and practice of social change in macro systems, participate in politics, and develop skills of advocacy, networking, brokering, and organizing. This course continues to promote professional development.

**SWK 410 SOCIAL WORK RESEARCH**

3 credits. Prerequisite: Swk 200; Co-requisite: Psy 311 or permission of instructor. This course will present topics that reflect social work practice concerns in a rapidly changing world of human needs and the impact on social and economic justice. Students will engage in policy analysis, research, reflection and discourse. Qualitative methods will be used to conduct a research project.

**SWK 425 TOPICS IN SOCIAL WORK**

3-6 credits. This course will present topics that reflect social work practice concerns in a rapidly changing world of human needs. Students will engage in policy analysis, research, reflection and discourse. The topic will change, thus the course can be taken multiple times.

**SWK 492A SENIOR SEMINAR I**

3 credits. Co-requisite: Swk 494A. This course will utilize a comprehensive approach to develop students' professional abilities, knowledge, skills, values, methods and practice as a social worker. The student's aptitude and emotional readiness for a career in social work will be discussed.

**SWK 492B SENIOR SEMINAR II**

3 credits. Co-requisite: Swk 494B. This course is a continuation of Swk 492A. This course will utilize a comprehensive approach to develop students' professional abilities, knowledge, skills, values, methods and practice as a social worker. The student's aptitude and emotional readiness for a career in social work will be discussed.

**SWK 494A SENIOR FIELD I**

6 credits. Co-requisite: Swk 492A. Prerequisite: Swk 315. The first of a two course series with students completing a total of 500 hours at a designated agency/organization under the supervision of a designated field instructor. Field Practicum places students in an environment to gain experience using the methods, knowledge, skills and values from the social work curriculum.

**SWK 494B SENIOR FIELD II**

6 credits. Co-requisite: Swk 492B. Prerequisite: Swk 494A. The second of a two course series with students completing a total of 500 hours at a designated agency/organization under the supervision of a designated field instructor. Field Practicum places students in an environment to gain experience using the methods, knowledge, skills and values from the social work curriculum.

**SOCIOLOGY**

*College of Professional Programs*

**SOC 100 INTRODUCTION TO SOCIOLOGY**

3 credits. Prerequisite: A passing score on both the reading and writing placement tests or successful completion of Eng 100 or a non-degree seeking student. Provides multicultural and global examinations of the relationship of the self to society. Introduces students to the sys-

tematic study of human society through sociological perspective and method. Emphasizes analysis of problems of social order and change. Includes socialization, social class and inequality, race and ethnicity, gender, social movements, social institutions, community, globalization, and deviance.

**Soc/PSY 200 SOCIAL PSYCHOLOGY**

3 credits. Prerequisite: Psy 100 or Soc 100. Considers the processes by which individuals interact with others, influence and are influenced by others, and are shaped by society. Includes topics such as the self, attitudes, prejudice, stereotypes, interpersonal attraction, group dynamics, and persuasion.

**Soc 230 CRIMINOLOGY**

3 credits. Prerequisites: Crj 100, Crj 130, Eng 100 with a C- or higher OR Eng 101. This course provides an introduction to the sociological study of crime and its attempted control. Specifically, issues such as definitions of crime, theories of crime, crime and the media, formal and informal reactions to criminal behavior, and the political economy of the U.S. criminal justice system will be explored within both historical and critical perspectives.

**Soc 303 RACE, CLASS, AND POWER**

3 credits. Prerequisite: Soc 100. A sociological analysis of structured inequality in the United States. Analyzes political, economic, and social power structures, and the nature and extent of inequality (based on race, gender, class, ethnicity, sexuality, etc.) across North America. Topics include institutionalized forms of domination such as racism, classism, sexism, and colonialism, as well as reactions to them.

**Soc 304 COMMUNITY, SOCIAL CHANGE, AND DEVELOPMENT**

3 credits. Prerequisite: Soc 100. Explores the culture and social organization of communities with reference to migration, human ecology, community development, social class, gentrification, and social change movements. Special emphasis on rural settings.

**Soc 308 URBAN SOCIOLOGY**

3 credits. Prerequisite: Soc 100. Exploration of cultural and social/psychological processes in urban living, and analysis of urban social problems. Special topics include the effects of migration; community formation among class, ethnic, age, and sex groups; classical images of the city; the human ecology of urban areas; urban life styles; and crises in urban institutions.

**Soc/SWK 325 GERONTOLOGY**

3 credits. Prerequisite: Soc 100. This course introduces students to the issues of aging through an interdisciplinary perspective. Social forces affecting people as they age, including biological, psychological, social, and spiritual issues is presented in a seminar class style. Current research and theory is critiqued. Aging is presented as a process rather than singular life event.

**Soc 335 SOCIAL DEVIANCE**

3 credits. Prerequisite: Soc 100. An examination of the various sociological explanations of deviance. An analysis of the way power is socially organized and how the theoretical images of deviance are translated into social control policy and practice will be presented.

**Soc 351 SOCIOLOGY OF THE FAMILY**

3 credits. Prerequisite: Soc 100. Examination of family organization and interaction patterns among family members. Origin and development of kinship patterns found in Western and less urbanized and industrialized societies, and their relationship to economic institutions and social structures. The function of the family in socialization and enculturation of society's recruits. Examination of the family in relation to sex-role socialization and gender behavior. Family life cycle, including courtship, marriage, reproduction, and old age. Family organization and interpersonal dynamics within families are examined in relation to social class and ethnicity with emphasis on poor families and those of ethnic minorities. Special attention is devoted to family problems (e.g., single parenting, divorce, and domestic violence) and problems fre-

quently associated with family life; e.g., drug and alcohol abuse, mental illness, and juvenile delinquency.

**Soc/CRJ 358 DOMESTIC VIOLENCE**

3 credits. Prerequisites: Crj 230 and Soc 230. This course is designed to engage students in active learning about the topic of violence against women. Through a survey of literature on various issues within this topic as well as a service learning project, the current state of knowledge and recommended interventions will be connected with real life experiences in Aroostook County and beyond.

**Soc/CRJ 372 POLICE AND POLICING**

3 credits. Prerequisites: Crj 230 and Soc 230. This course examines the social, structural and historical foundations of modern policing. Primary analysis is placed on the function of law enforcement in relation to crime prevention and control, and police-community relations.

**Soc/CRJ 376 PUNISHMENT AND CORRECTION**

3 credits. Prerequisites: Crj 230 and Soc 230. This course provides an overview of the history of punishment as a social action and the development of the prison as an institution. A review of the current state of US corrections and the expansion of penal institutions in the US over the past three decades is combined with various special topics within punishment and corrections.

**Soc/CRJ 377 RESTORATIVE JUSTICE AND COMMUNITY-BASED CORRECTIONS**

3 credits. Prerequisites: Crj 230 and Soc 230. The course focuses on restorative justice tenets and policy implications. The history of probation, parole and other community-based sentencing options are examined relative to their potential for increased use of restorative justice practices.

**Soc/CRJ 378 WOMEN AND CRIME**

3 credits. Prerequisites: Crj 230 and Soc 230. This course explores the discourses, representations and responses to female deviance and criminality in the Criminal Justice System. Particular attention is focused on portrayals of,

and reactions to, women who commit non-traditional offenses, and the implications this has in the study of gender.

**SOC 380 TOPICS IN SOCIOLOGY**

3 credits. Prerequisite: Soc 100. Considers a topic in contemporary sociology not covered by other courses. Possible topics include population and ecology, medical sociology, victimology, sociology of religion, sociology of humor, violence and society, social conflict and peace, education, technology and social change, and futurology. May be repeated for credit when the topic is different.

**SOC 430 THEORETICAL CRIMINOLOGY**

3 credits. Prerequisite: Senior Standing. Emphasis on the study of theory as a vehicle for developing critical thinking skills. A focus on contemporary theories of crime including Marxism; Left Realism; Feminism; Peacemaking; Post-modernism and Cultural Criminology. Each theory is evaluated for actual and potential criminal justice policy consequences.

**SOC/CRJ 496 FIELD EXPERIENCE IN CRIMINAL JUSTICE/SOCIOLOGY**

3, 6 or 12 credits. Prerequisites: Junior or senior standing and instructor permission. Supervised field experience in a criminal justice or social service agency. Course can be taken for variable credit (3 or 6 hours) determined by hours completed at the field site. Course can be taken for 12 credit hours when student is completing full law enforcement academy training. Courses may be repeated for up to 18 credits.

**SPANISH**

*College of Arts & Sciences*

**SPA 101 ELEMENTARY SPANISH I**

3 credits. Basic skills in Spanish with emphasis on speaking and listening comprehension. Spanish and Latin American Culture form the background.

**SPA 102 ELEMENTARY SPANISH II**

3 credits. Continuation of Spanish 101 with emphasis on past and future tenses and more advanced conversational skills.

**SPECIAL EDUCATION**

*College of Professional Programs*

**SED 212 SPECIAL EDUCATION LAW**

3 credits. This course will review the United States and State of Maine Special Education statutory and regulatory foundations. This will include an overview of judicial interpretations and other legal issues surrounding the entitlement of educational services to students with disabilities.

**SED/EDU 222 GUIDING POSITIVE BEHAVIOR**

3 credits. Prerequisite: Edu 200. This course focuses on instructional models and methods for modifying student misbehavior. Characteristics of students with behavioral challenges and interventions will be explored. Student-centered preventative strategies with an emphasis on improving social skills are emphasized. Collaborative teaming, family involvement, and culturally responsive teaching approaches are discussed.

**SED/EDU 232 LANGUAGE DEVELOPMENT IN EXCEPTIONAL LEARNERS**

3 credits. This course will provide students with an understanding of language development from birth to early adulthood (both typical and atypical) and the effects of language delays and disorders on cognitive/affective performance. Theory and practical activities will provide a context for working with children with exceptionalities in school settings.

**SED 312 ASSESSMENT IN SPECIAL EDUCATION**

3 credits. Prerequisites: Edu 387 and Sed/Edu 222. Educational assessment methods and procedures used in decision-making and program planning for students with mild/moderate disabilities including those from culturally or linguistically diverse backgrounds will be examined. This will include rules and

procedures mandated by the Individual with Disabilities Education Act and Maine Special Education Regulations.

**SED/EDU 322 INSTRUCTIONAL STRATEGIES IN SPECIAL EDUCATION**

3 credits. Prerequisite: Edu 387. Explores methods of teaching students with special needs, highlighting effective strategies such as direct/indirect instruction, interactive instruction, experiential learning, independent study and customized learning. Response to Intervention, Positive Behavioral Interventions, Assistive Technology, and Universal Designed Instruction will also be covered.

**SED/EDU 332 PROGRAM PLANNING AND CURRICULAR ADAPTATION FOR EXCEPTIONAL LEARNERS**

3 credits. Prerequisites: Edu 310, Edu 387, Sed 212. This course covers the organization and planning process for students with disabilities, including the IEP process, IEP development, and writing goals and objectives. Topics include writing behavioral objectives, instructional management, and specialized practices for accommodating and modifying the curricular needs of students with disabilities.

**SED/EDU 352 COLLABORATION & CONSULTATION IN GENERAL AND SPECIAL EDUCATION**

3 credits. Prerequisites: Edu 310 and Edu 387. This course explores strategies, techniques and skills for effective communication, consultation, and collaboration with families, colleagues, and other professionals. Emphasis will be on developing an understanding of collaborative consultation, especially the Response to Intervention model, and cooperative teaching in educating students who may be at risk or with a disability.

**SED 396 SPECIAL EDUCATION PARAPROFESSIONAL FIELD EXPERIENCE**

6 credits. Prerequisites: Cumulative Grade Point Average 2.50, completed 40 credit hours of which 15 credits are

in the Special Education Requirements, completed State of Maine Fingerprinting and other appropriate background checks. A 200 hour supervised individual experience in a special education setting designed to give students an opportunity to observe and participate in teaching individuals with special needs. Students will be expected to participate in workshops, conference and group discussions as directed by the field experience supervisor.

**SED/EDU 490 CAPSTONE IN  
TEACHER EDUCATION**

2 credits. Prerequisite: Concurrent with Edu 495 or permission of instructor. This capstone culminating experience for Education majors will focus on integrating knowledge and reflection insights garnered from their core professional educational and field experiences. Contemporary education issues and pedagogical challenges will be examined in preparation for career exploration. Students will complete a professional portfolio and initiate employment search activities.

**WABANAKI STUDIES**

*College of Arts & Sciences*

**WAB 100 INTRODUCTION  
TO THE MICMAC LANGUAGE**

3 credits. This course familiarizes students with the Micmac alphabet and language. Students will gain an understanding of the customs and traditions of the Micmac people and participate in role play and class discussion using the Micmac language.

**WAB 105 INTRODUCTION TO  
MALISEET LANGUAGE**

3 credits. This course will introduce students to the grammatical aspects of the Maliseet language. Traditional aspects of language such as storytelling, songs, dialogues, plays, and conversation will be emphasized. Students will be guided to enhance their listening skills and encouraged to practice reading, writing, and speaking skills.

**WAB 110 WABANAKI WORLDVIEWS**

3 credits. This course introduces students to the worldviews of the Maliseet, Mi'kmaq, Passamaquoddy, Penobscot, and Abenaki people. The values, beliefs, and ethics of the Wabanaki people as embedded within language, ceremo-

nies, traditions, and instructional structures, will be explored both in historical and contemporary contexts.

**WOMEN'S STUDIES**

*College of Arts & Sciences*

**WST 101 INTRODUCTION TO WOMEN'S STUDIES**

3 credits. Prerequisite: Eng 100 with a grade of Grade C- or higher or Eng 101 or equivalent. An interdisciplinary course posing critical questions of gender identity within society. The primary goal of this course is to provide historical context to the feminine place in social spheres such as family, employment, medicine, sexuality, culture, race, and law. Students will analyze issues, questions, debates, and culture, both historical and contemporary, through written assignments and class discussion. ★